Mass Shooters and Extremist Violence: Motives, Paths, and Prevention

HOW TO RECEIVE CREDIT

- Read the enclosed course.
- Complete the questions at the end of the course.
- Return your completed Evaluation to NetCE by mail or fax, or complete online at www.NetCE.com. (If you are a physician or Florida nurse, please return the included Answer Sheet/Evaluation.) Your postmark or facsimile date will be used as your completion date.
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Faculty

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Faculty Disclosure

Contributing faculty, Mark Rose, BS, MA, LP, has disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

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The division planners and director have disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

Audience

This course is designed for all healthcare professionals who may intervene to identify persons at risk for committing acts of mass violence.

Accreditations & Approvals

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Course Objective

The purpose of this course is to provide health and mental health professionals with the knowledge and skills necessary to identify persons on paths to extreme violence and to intervene to prevent mass shooting events.

Learning Objectives

Upon completion of this course, you should be able to:

1. Outline the history of mass violence and media coverage of these events in the United States.
2. Identify psychopathology that is uncommon in mass shooters.
3. Describe psychopathology that is common in mass shooters and discuss how different pathologies act synergistically.
4. Analyze cultural factors that influence perpetrators of mass violence.
5. Distinguish targeted and affective violence and the role of pathways in identifying persons at risk for mass violence.
6. Evaluate components of the Pathways to Violence Model.
7. Describe the proximal warning behaviors outlined in the Warning Behaviors Model.
8. Discuss the distal characteristics of targeted violence as defined in the Warning Behaviors Model.
9. Define core concepts associated with perpetration of extremist violence, including radicalization and terrorism.
10. Analyze current and historic extremist ideologies common in the United States.
11. Outline the role of Islamist and far-rightist violence in the United States, including media and cultural narratives.
12. Evaluate models used to describe the common pathways to extremist violence.
13. Review general gun violence trends and data.
14. Describe the barriers to and rationale for gun safety discussions with patients.
15. Discuss considerations for avoiding stigmatizing patients with mental illness and appropriately meeting the needs of non-English-proficient patients in conversations regarding gun safety.

EVIDENCE-BASED PRACTICE RECOMMENDATION

Sections marked with this symbol include evidence-based practice recommendations. The level of evidence and/or strength of recommendation, as provided by the evidence-based source, are also included so you may determine the validity or relevance of the information. These sections may be used in conjunction with the course material for better application to your daily practice.

INTRODUCTION

Mass shootings at schools and other public settings are distressingly familiar, but their close relationship to extremist violence and domestic homicide is largely unknown. Mass shootings are part of a larger public health concern of gun violence that includes homicide, suicide, and gunshot injury. These violent acts are not impulsive, but are endpoints of a pathway beginning with grievance and alienation. Interaction with other factors influences movement on a pathway to mass violence (usually, but not always, involving guns) and whether the culmination is fueled by personal or ideologic motive; the marked similarities of perpetrators and pathways in both erase many previous distinctions.

Extreme beliefs drive ideologic mass violence, but it is important to remember that few with extreme beliefs progress to extreme behaviors (violence). Hate is an extreme belief that can lead to extremist violence and motivate intergroup violence when cultural or economic changes perceived as threats are blamed on another group. In the United States, ideologic violence is primarily perceived as a problem from Muslims, but more acts of fatal mass violence are committed by far-right extremists than Islamist extremists [108].

More than half of mass shootings (generally defined as at least four persons killed in an incident) are domestic homicide events. During domestic violence, the risk of homicide increases 500% when a gun is present, and gun access is also a factor in public mass shootings [176].

Mass shootings, extremist violence, and domestic homicides are closely related. Gun violence, gun rights, and gun control are contentious subjects, but also require attention. Health and mental health providers play a key role in preventing gun violence by initiating conversations with patients, but they often lack training and guidance. Understanding the beliefs and perspectives of gun culture allows for effective gun safety counseling.

Clinicians are not immune to the false narratives surrounding mass shooting and extremist violence (a more accurate term than "terrorism") and benefit from understanding the evidence on mass and domestic violence, gun violence in general, their aggravating and mitigating factors, and preventive approaches.

Please note that all information contained in this course is specific to the United States, except when explicitly stated.

HISTORICAL OVERVIEW

Discussions of mass shootings and extremist violence may give the impression of an American public in an era of unique and unprecedented threat, but these phenomena are not recent. The following overview describes the historical antecedent events and perpetrators of personal and ideologically motivated mass violence. Over the past 140 years, the patterns and themes are recurrent, while cultural framing of individuals as predisposed to mass violence has changed over time [253].

ANARCHISTS: THE FIRST VIOLENT EXTREMISTS

The anarchist wave of extremist violence spread from Europe to the United States in the later 1800s. Similarities to recent Islamist extremist violence are evident. Borne of extreme income inequality, anarchist ideology advocated class warfare against capitalism and government oppression through violent revolution, including bombing and assassination [1; 2].

The United States in the later 1800s was described as the Gilded Age. The richest 2% owned 60% of the wealth, 35,000 workers died in industrial accidents every year, and striking for better work conditions resulted in violent reprisals. Under these conditions, anarchism spread to the industrial hubs of the United States [1; 2].

Chicago became a center of anarchism and anarchist leaders who endorsed violence to fight capitalist oppression. A Chicago newspaper printed instructions on how to use dynamite and other terrorism-related pieces. In 1886, 40,000 workers went on strike for an eight-hour workday in Chicago. Riots ensued, a bomb thrown at a group of policemen killed seven officers, and several anarchists were prosecuted and convicted [2; 3].

The level of population-level terror caused by anarchists was substantial. Bomb attacks ripped through underground subways, theaters, cafes, parades, and other crowded settings in London, Barcelona, Paris, Moscow, Melbourne (Australia), and other major cities. Between 1894 and 1900, the heads of state in Russia, France, Spain, Austria, and Italy were assassinated [4; 5].

In the United States, an anarchist assassinated President William McKinley in 1901. Industrialists were targeted for murder. In 1920, a bomb exploded on Wall Street, killing 38 people and seriously wounding 143, the most destructive act of terrorism on American soil until the Oklahoma City bombing in 1995. In 1908, President Theodore Roosevelt stated that "compared with the suppression of anarchy, every other question sinks into insignificance" [4; 5].

Anarchist terrorism coincided with the onset of mass journalism, and a mutually reinforcing relationship developed. Tabloid-style reporting that sensationalized the terrorist acts and vilified the anarchists drove sales and profits. This attracted new recruits, ignorant of anarchist theory but interested in the notoriety and publicity. Media coverage fed into anarchists' grandiosity and vanity, and many were obsessed with their press. The nature of reporting elevated and spread public fears and perceptions of threat disproportionate to their true levels [2; 4].

The racist anarchist profile popularized by the media fueled ethnic tensions, triggering indiscriminate deportation programs that targeted immigrant communities and other vicious backlashes against immigrants that went far beyond the perpetrators. Ethnic tensions peaked in 1927 when Sacco and Vanzetti, recent Italian immigrants, were put on trial for anarchism [2; 4]. A presidential commission warned this crackdown only validated anarchist rhetoric about a police state and made violent resistance against police brutality seem necessary to young, disaffected men in targeted immigrant communities. Instead, the commission stressed the importance of addressing severe income inequality and other root structural causes of the violence [2; 4].

Following the onset of the Great Depression in the early 1930s, severe civil unrest and frequent, violent clashes between foreclosed farmers and unemployed industrial workers and strikebreakers, police, and the National Guard were common.

On February 15, 1933, anarchist Giuseppe Zangara attempted to assassinate President-elect Franklin D. Roosevelt (FDR). Standing 30 feet away, Zangara fired five shots at FDR, hitting persons next to FDR, one of whom died [6]. By the mid-1930s, the mass unrest dissipated as social and economic policies began addressing the root causes [5].

MASS MURDER AT A SCHOOL

The deadliest school attack killed 44 and wounded 58 in Bath, Michigan, in 1927, but this event is regularly missing from depictions of mass murder in America. The Bath Consolidated School (BCS) was attacked by Andrew Kehoe, who moved to Bath in 1912 and later became treasurer of the local school board. The BCS opened in 1922, vehemently opposed by Kehoe because its funding required property tax increases. This led to conflicts with other board members. In a public defeat, he lost his seat on the school board in 1926 [7; 8].

Kehoe stopped paying the mortgage on his farm and received a letter of foreclosure. His wife was severely ill with tuberculosis. Neighbors thought Kehoe had become suicidal or was planning murderous revenge. Kehoe, a mechanic, had keys to access the BCS for repairs and rigged explosives throughout the school in the months before the attack [7; 8].

The morning of the attack, Kehoe murdered his wife, firebombed his farm, and then detonated the first bomb at BCS. The timer to the second 500-lb bomb failed, so he drove his truck into rescuers and detonated dynamite inside it, killing himself and several others. His motive was vengeance against the school board and community for increasing his taxes to pay for the BCS [7; 8]. He left a final communication, "Criminals are made, not born," reflecting externalized blame and long-held grievance [9].

The story made national headlines, but quickly disappeared. Men of Northern European heritage in small towns, like Kehoe, did not fit the prevailing terrorist narrative during a period when the public greatly feared bombing by "anarchist foreigners;" Sacco and Vanzetti were executed three months after the Bath bombing. Without an obvious political motive, the media quickly reached for mental illness to rationalize the incomprehensible, and news headlines widely described Kehoe as a "maniac." Then, as now, this approach stigmatizes people with mental illness, but serves to comfort a public that wants to see mass murderers and terrorists as insane, because viewing them as rational actors makes them a far greater threat [10].

MASS SHOOTINGS

The First Public Shooting Incident

Many reviews of mass shooting events in the United States cite the 1966 incident perpetrated by Charles Whitman at the University of Texas at Austin (UTA) as the first such offense. This is true of the modern era, but the first true incident occurred 63 years earlier, on August 13, 1903 [11].

That evening, an estimated 1,000 to 5,000 concert-goers packed into downtown Winfield, Kansas, for an outdoor music event. Gilbert Twigg opened fire on the crowd with a shotgun, killing 9 people and injuring at least 25. Twigg's seemingly indiscriminate choice of victims is considered the first of its nature in the United States, an archetype of mass shootings prevalent later in the century [11].

In 1889, the 19-year-old Twigg moved to Winfield with an uncle. He was reportedly viewed as bright and good-looking, with a favorable future. In 1894, a woman broke off an engagement to him. Demoralized, he joined the army in 1896, and was sent to fight in the Philippines for three years during a bloody insurrection that saw excessive brutality by both sides. During this period, an ongoing conflict with two superior officers developed into a severe grievance [11].

Returning to Winfield in 1903, his deterioration was obvious. Twigg's former employer, and other businesses, refused to hire him. Others noted that he muttered of plots against him and of being jilted. A search of his belongings after the massacre found a rambling, paranoid note warning that vengeful annihilation of all who conspired against him was imminent [11].

The University of Texas at Austin and South Chicago Community Hospital in 1966

On August 1, 1966, 25-year-old student Charles Whitman climbed to the top of the high campus tower at UTA and began shooting at people below, killing 15 and wounding 31 before the police shot and killed him. This horrific event occurred just two weeks after Richard Speck committed one of the most notorious mass murders in American history when he gained entrance to a dormitory at night and killed eight nursing students at the South Chicago Community Hospital [12].

Both murders were thought to profoundly influence the public's fear of crime, with Speck shattering people's perceptions of safety in their own homes and Whitman having an equally damaging effect on beliefs of safety in public places. The two crimes significantly shaped the perception of mass murder [12].

Head injury and brain dysfunction are thought to be highly prevalent among mass murderers, with 10% a conservative estimate and considerably higher than in the general population. Brain injury may interact with adverse psychosocial factors to increase individual predisposition, suggested in the histories of Richard Speck, who sustained a head injury falling from a tree; Andrew Kehoe, who was in a coma for two weeks from a severe head injury sustained in a fall in early adulthood; and Charles Whitman, with severe headaches, changes in personality, and violent, intrusive ideation possibly from a large brain tumor found at autopsy [9; 13].

The 2017 Las Vegas Mass Murder

Detailed case analyses of mass violence perpetrators show similar distal and proximal patterns leading to the incident; this will be discussed later in this course. The Las Vegas mass murderer Stephen Paddock has remained an enigma. In the worst mass shooting in U.S. history, 58 people were killed and more than 420 were wounded by gunshots on October 1, 2017. Paddock erased his digital trail leading to the meticulously planned attack [14; 15].

The first hint of possible motivation came in documents released seven months later. Multiple witnesses gave statements of their contacts with Paddock shortly before the attack. These described his angry, agitated tirades about the deadly standoffs at Ruby Ridge, Idaho, in 1992, Waco, Texas, in 1993, and the involved agencies (Federal Bureau of Investigation [FBI], Bureau of Alcohol, Tobacco, Firearms, and Explosives [ATF]); the federal government in general, gun control, and the Federal Emergency Management Agency (FEMA) "camps" for gun owners; the 25th anniversary of Ruby Ridge; and that "sometimes sacrifices have to be made" [16; 17]. While not conclusive, the statements align with the beliefs of anti-government extremists, a segment of the far-right [18].

In the 11 months before the attack, Paddock purchased more than 55 guns (mostly assault weapons). Found in the hotel room where he shot into the crowd were 24 weapons, mostly AR-15 rifles or variants with 100-round magazines and bump stocks to enable high firing rates. Hundreds of child pornography images were found on his laptop computer. Paddock's father was a bank robber once on the FBI's Most Wanted List, whom the FBI classified as a "psychopath." Psychopathic traits can be inherited, and while they do not account for the motivation, they may explain the detachment and cruelty necessary to commit such an act [14; 15].

THE MEDIA AND PUBLIC PERCEPTION

As mentioned, public perceptions of mass murder and murderers have changed over time. The framing of individuals and subgroups as predisposed to mass violence is shaped by culturally prevailing political, race, and class anxieties, which are propagated by the media. This is bidirectional, as the media also shapes prevailing political, race, and class anxieties. The stigma linked to gun violence and mental illness is itself complex, politicized, and influenced by changing views of race, gender roles, violence, and conceptions of psychiatric illness [19].

News media depictions have long been the primary information source of mass murder for the public, journalists, academics, interest group activists, and criminal justice professionals. The media has fundamentally influenced the narratives and perceptions of mass murder/murderers, and research has consistently shown that the news media presents a distorted image of crime. The need to attract a larger audience and greater advertising revenue has shaped media selection and presentation of violent crime [12; 20].

Mass shootings and murders in public spaces naturally evoke horror and outrage. The nature of media coverage and commentary amplifies public fears of their safety and promotes anger and blame directed at individuals portrayed as predisposed to mass violence. Oversimplified discussions often reduce complex phenomena to a single factor.

False information can also spread by media efforts to lead the reporting in breaking news situations. Within hours of the Parkland, Florida, shooting in February 2018, Republic of Florida leader Jordan Jereb claimed credit for training perpetrator Nikolas Cruz as a joke that he posted online in alt-right fora. The media began reporting that Cruz was a violent White supremacist, and the spread of this hoax made Jereb a celebrity in trolling subcultures [21; 22]. (Trolling is defined as deliberately trying to disrupt, upset, attack, or offend others online.) Following mass shootings, alt-right trolls also float the names of innocent individuals to "bait" mainstream media uptake. After the Parkland shooting, a hoax of this nature was re-posted on Twitter by prominent figures, including the President of the United States [21].

Some widespread misperceptions and erroneous beliefs discussed in this course include [9; 23; 24; 25; 26]:

The perpetrator "snapped."

In this case, the premise is that nobody who reflected on such an act would engage in behavior so horrifying. Unlike impulsive violence, which is the most prevalent type overall, mass shootings almost always reflect targeted, or instrumental, violence. This subtype of violence is planned and methodically prepared over time.

The perpetrator must have been Muslim.

The catastrophic attack on September 11, 2001, by violent Islamist extremists continues to shape public and law enforcement perception of Muslims as uniquely terrorism-prone. As discussed later in this course, Islamist extremist violence has become infrequent in the United States and other extremist subgroups present a higher level of threat.

The assailant must have been mentally ill.

In mass shootings that capture media attention, perpetrators are often depicted as schizophrenic, psychotic, or "psycho." Mental illness has long been used to explain why these rampages occur, in part because it rejects the idea that a sane person could do something so horrific. Mass violence is very rare by persons experiencing serious mental illness (as it is among those without mental illness).

Mass shootings are just a fact of life.

The randomness of these events and inability to predict their perpetration can promote the view that future victims, law enforcement, and society are helpless and powerless. This is challenged by research showing that mass violence cannot be predicted but may be prevented.

MASS SHOOTERS: CHARACTERISTICS

A variety of psychopathologic, social, and interpersonal factors interact to increase the likelihood an individual will move to a path to mass violence.

PSYCHOPATHOLOGY OF MASS SHOOTERS/MURDERERS

In mass shooters with psychiatric diagnoses, perpetration is motivated by long-standing, pervasive feelings of extreme anger, persecution, violent revenge, and severe narcissism, and not by formal symptoms of the psychiatric disorder [27]. These abnormalities reflect character pathology traits or symptoms of personality disorders, which differ from serious mental illness [26].

Personality disorders are enduring, pervasive, inflexible patterns of behaviors. With typical onset in adolescence or early adulthood, these disorders of maladaptive attitudes, behaviors, and thought patterns remain stable over time. Such individuals may conclude that violence is an acceptable or necessary response to their problems, but they are not disengaged from reality and are capable of logistical and rational processes necessary for long-term planning [26].

Mass shooters frequently feel compelled to leave some type of final communication; others have been caught and extensively evaluated. Nearly all "leak" their pre-attack intent or thought process. These sources provide a more complete understanding of perpetrator motives, mental state, and psychologic disturbances [24; 28; 29; 30].

Psychiatric Disorders Not Associated with Mass Shooting

Schizophrenia/Serious Mental Illness

The umbrella term "serious mental illness" refers to psychoses, schizophrenia (including paranoid type), bipolar disorder, and severe major depression. Active delusions and psychotic symptoms, such as command hallucinations, acutely elevate the risk of violent behavior, especially if substance abuse or cognitive impairments are present. Some persons with serious mental illness who are non-adherent to their medication have a higher risk of violence, either against others or self-directed (e.g., suicidal behavior) [31]. Overall, however, persons with serious mental illness and other psychiatric disorders are not more violent than individuals without psychiatric conditions. Importantly, mass shootings committed during episodes of serious mental illness are rare [9].

Despite this, mass shootings that capture media attention are often followed by depictions of the perpetrator as mentally ill and by calls for improved mental health care [32]. For example, following the 1999 Columbine and the 2012 Newtown school massacres came high-profile warnings—some by psychiatrists—that half of mass shooters/murderers were experiencing serious mental illness, mostly schizophrenia, and their treatment would have prevented such incidents [19]. The criminology literature contributes to these misperceptions by recycling obsolete and incorrect statistics on mass shooters/murderers [20].

Since 1950, the public perception of persons with mental illness as violent or frightening have increased; persons with serious mental illness are more feared today than they were half a century ago [9; 33]. In a Gallup poll designed to assess public perception of factors associated with mass shootings, 80% of respondents attributed a "great deal" (48%) or "fair amount" (32%) of blame to the failure of the mental health system to identify individuals who are a danger to others [34]. This opinion, often echoed by researchers, may appear supported by evidence that many mass shooters had received a psychiatric diagnosis at some point [25; 28]. However, these assertions of causality or heightened risk are overwhelmingly discredited by evidence that persons with serious mental illness commit less than 3% of all violence. Most of this violence does not involve guns. The relationship between psychiatric disorders and violence in any form is minimal when substance abuse is absent, and suicide—not homicide—is the most significant public health concern with mental illness and guns [9; 35; 36].

Although mass shooters with active serious mental illness are rare, they do occur. In 2009, a 41-year-old man killed 13 people and wounded another 4 in Binghamton, New York. In the two weeks before the incident, the man's father reported that his son had stopped eating dinner and became withdrawn. A local news station received a letter from the offender, mailed the day of the shootings, that reflected chronic paranoid, persecutory delusions with the shooter describing resentment over his perceived persecution by "undercover cops" who destroyed his chances of assimilating and working in the United States. The case material suggested active psychosis and severe depression [9; 29].

Substance Use Disorders

Mass shooters seldom use substances, probably to avoid impairing effects on planning, preparation, and maximizing the casualty rate. The exceptions were two cases in which therapeutic amounts of sedating drugs were ingested [37].

In contrast, other violence commonly involves substance use, especially alcohol. With intimate partner homicide, the victim, perpetrator, or both are often intoxicated [37]. Alcohol and drug use increase the risk of violent crime as much as seven-fold, even in persons without a history of mental illness [38]. This is especially concerning in states with laws that allow persons to bring loaded handguns into bars and nightclubs. A history of childhood abuse, binge drinking, and male sex are predictive factors for serious (but not mass) violence [19; 39].

Limitations of the Standard Diagnostic Systems

Limitations of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5-TR) have interfered with efforts to identify the psychopathology of mass shooters [40]. The DSM-5-TR uses a categorical diagnostic system, whereby personality and other psychiatric disorders are determined as present or absent, based on whether the number of diagnostic criteria meets the diagnostic threshold [41]. Dimensionality is a truer measure of personality pathology, because personality traits fall on a spectrum of trait dimensions that may be present in differing degrees. Destructive narcissistic or paranoid traits may be present in an individual, but when the number of symptom criteria are insufficient to meet DSM-5-TR diagnostic criteria, important dimensional aspects of the psychopathology are missed [24].

Extremes of character and temperamental traits do not fit easily into the categorical diagnostic system of the DSM-5-TR and can require more complicated formulations and assessments. The DSM has also contributed to checklist-style psychiatric examinations that may blur important diagnostic distinctions [41].

The DSM-5-TR classifies psychiatric disorders by symptom-based criteria and not by underlying cause. This modern DSM system increases diagnostic reliability, but some argue at the expense of validity. This is most relevant in pathologic personality traits; the dimensional aspects of mental structure and functioning and pathologic disturbances in cognition, ideation, fantasy, affect, psychologic defenses, object relating, moral functioning, and impulse control are better understood and evaluated using psychodynamic concepts [40].

Media and behavioral health specialists commonly (but usually erroneously) ascribe mass shootings and terrorist attacks to delusional, psychotic beliefs [42]. The DSM-5-TR classification of psychotic disorders invites interpretation of rigid but non-delusional beliefs as psychotic-spectrum conditions [41].

An extreme overvalued belief is a core concept in understanding ideologic violence and mass shootings. Extreme overvalued beliefs are rigidly held, non-delusional beliefs shared by one's subgroup. The belief is often defended, becoming more dominant, refined, and resistant to challenge over time. The individual develops an intense emotional commitment to the belief and may act violently in its service—justified by a sense of moral superiority [42].

Extreme overvalued beliefs are not psychotic delusions, which are defined as fixed, false idiosyncratic beliefs not shared by others. Extreme overvalued beliefs also are not obsessional beliefs, recognized by an individual as their own but resisted due to the intrusive unpleasant nature. The DSM-5-TR adds confusion by describing overvalued ideas as not shared by others in one's subcultural group, which is often not the case [42].

The 9/11 terrorists, Unabomber Ted Kaczynski, the Oklahoma City bomber, and perpetrators of Islamist and antiabortionist violence all possessed extreme overvalued beliefs that promoted a view of their moral superiority that justified violence [41]. During the criminal responsibility evaluations of Anders Breivik (the Norwegian mass shooter responsible for the deaths of 77 people), the initial team of psychiatrists erroneously concluded his beliefs reflected paranoid schizophrenia. A second team correctly defined his bizarre, extreme beliefs as extreme overvalued beliefs shared by other right-wing extremist groups in Norway [42].

One subgroup with shared extreme overvalued beliefs are "sovereign citizens." Believing the U.S. government is illegitimate, they wage war against it and those in authority through harassment, refusal to pay taxes, intimidation, and occasionally violence. When challenged, sovereign citizens espouse idiosyncratic legal theories and political beliefs that may appear delusional but are shared by these adherents and are best understood as an extremist political philosophy and not as a psychotic belief system [41].

Psychopathology Associated with Mass Shooters

As discussed, psychiatric disorders alone do not cause individuals to commit mass shootings. But psychiatric symptoms may exacerbate other problems, making it more difficult to deal with family, work or school problems, peer relationships, or personal crises [43]. Mass shooters may report their acts of violence were precipitated by anger over blocked goal achievement (e.g., being expelled from school or fired from work) or negative social interactions (e.g., peer bullying, rejection, humiliation) [43]. The disproportionality and perceived basis of their rage and vengeance is not adequately explained by psychologic conditions (e.g., depression, psychosis, antisocial personality) or social experiences (e.g., being bullied) [44; 45].

Instead, this requires contribution from other conditions. With narcissism, psychopathy, or paranoia present, one's perspective and interpretation of the world readily distorts, which promotes irrational and exaggerated perceptions of one's victimization and persecution, ultimately leading to the targeting of those perceived to represent their persecutors [25; 43]. The interaction of paranoid ideation and narcissistic pathology captures the psychopathology of mass shooters.

Paranoia

Paranoia begins as a profound disturbance in the sense of trust—a sense of self under attack. This develops from an intense insecurity related to some deep sense of inferiority. The intensity of this perceived insecurity and constant intrusion into awareness generates anxiety. Convinced the defect is perceived by others and cannot be disguised, chronic feelings of shame and humiliation develop [45]. A belief one is special enough to be singled out for persecution reflects the narcissistic dimensions of paranoia [46].

Individuals with paranoia are hypersensitive to perceived slights. Obsessed with revenge, they justify the revenge as "payback" for a perceived injustice. They often react disproportionately to perceived slights, and their "mistreatment" by others may not have been extreme or unusual. Eric Harris (one of the Columbine killers) left a diary describing a hatred of his bullying, persecutory peers; this was unsubstantiated after extensive interviewing of Columbine students [47]. The final writings of Virginia Tech shooter Seung-Hui Cho portrayed other students (whom he barely knew) as having "raped my soul" and having "crucified" him [46].

Rejection or "disrespect" is perceived as showing others are on attack, consider them inferior, or expect them to submit to external control. Paranoid persons become obsessed with social rank and status in social settings and despise weakness. Self-justifying and entitled, they view their behavior as necessitated by their unique plight caused by the ill will of others [45].

The nature of paranoia self-exacerbates, because the paranoid individual withdraws and his or her thought processes are not amenable to corrective feedback. The individual ruminates angrily on his or her humiliation by others. This becomes magnified with isolation, explaining the build-up of rage and planned annihilation and how the personality pathology of mass shooters devolves over time [45; 48].

The obsession with rejection or "disrespect" that progresses into rage and planned annihilation usually stems from paranoid thinking and not psychopathy [49]. Purely psychopathic individuals do not form or desire to form emotional bonds, are unlikely to obsess about rejection by others, and are likely to dismiss the others out of hand. While Harris and some other mass shooters possessed prominent psychopathic traits, their psychopathy was not the main driver of murderous vengeance over perceived social rejection [45].

Studies of mass murderers describe paranoid conditions as pervasive, falling on a spectrum from traits to delusion. Paranoid themes seldom rise to the level of psychosis in these offenders, but virtually all share common themes of preoccupation with feelings of social persecution, alienation, and/or perceived injustice; severe envy; and fantasies of revenge against their perceived tormentors for the cumulative perceived maltreatment [9; 24; 50]. It is important to remember that feeling persecuted and being persecuted are not the same thing [45].

Narcissistic Pathology

Narcissism is a dimensional personality trait that, in more pronounced cases, involves an inflated and grandiose regard of self, extremely low regard of others, and inability to experience empathy, concern, or compassion for others' suffering [51]. With a grandiose and unstable sense of self, hypersensitivity to ego threats results in retaliatory aggression and violence to perceived social rejection and insult [52]. In pathologic narcissism, destructive rage is an externalized defense reaction against intolerable feelings of shame or powerlessness and aversive self-awareness of defect [23].

Narcissistic injury occurs when the pathologic narcissist perceives a threat to their self-esteem that reveals to others their hidden, "true" defective self [44]. Narcissistic injury can provoke narcissistic rage, an ego preservation response that serves to restore a sense of safety and power by destroying a threat, to satisfy the need for revenge, and to right a wrong by inflicting pain on another [13; 53]. When present with paranoid traits, the interaction can produce a severe reaction with excessive retaliation and disproportionate transfer of pain to perceived persecutors believed to be the only resolution [23; 24].

The interaction of paranoid cognition with narcissistic traits over time increases the propensity for targeted violence. This is most evident in the diaries or "manifestos" of mass shooters discovered post-event. A central theme is feeling rejected, dismissed, disrespected, and devalued by an "in-group" and of wanting vengeance for this mistreatment. The in-group is despised for being "superficial" and for their undeserved status. The "rejecting" peer group becomes an obsession; the shooter cannot let go and move on [45].

Malignant narcissism, a syndrome with core components of pathologic narcissism, antisocial features, paranoid traits, and unconstrained aggression, may also be present. Malignant narcissism is psychoanalytically described as a level of personality fracture or disorganization—a disturbance of object relations—whereby a profoundly fragile sense of self is compensated by antisocial grandiosity ("I am above the rules") and preoccupation with mistreatment and disrespect by others [52; 53].

Autism Spectrum Disorder

The role of autism spectrum disorder (ASD) in mass shooters is controversial but significant and only recently identified [54]. ASD encompasses the neurodevelopmental disorders previously termed autism and Asperger syndrome. The range of potential symptoms and severities makes ASD a spectrum disorder [55].

ASD is not a mental illness or personality disorder in the usual sense, but is considered an impairment of early brain development leading to personal, social, academic, or occupational difficulties [55]. ASD is usually identified in early childhood by pervasive deficits in social communication and interactions, restricted and repetitive patterns of behavior or activities, and intense but non-bizarre special interests [54].

Marked social impairment and anxiety, lack of empathy, highly rigid thought processes, and very literal interpretation of written and verbal material typify ASD [43]. Persons with ASD can have good technical skills and may be drawn to computers, which are logical and syntax-guided, unlike social interactions, which are guided by semantics and can be confusing and anxiety-provoking [56].

ASD is differentiated from other disorders that may present with social-interaction abnormalities and restricted interests. Unlike schizoid personality disorder, persons with ASD often have a desire to make friends or have intimate relationships, but profound social-skills deficits make them unable to appropriately engage, empathize with, or respond to others. Unlike schizotypal personality disorder, social-interaction impairments in ASD are rooted in empathic and perspective-taking deficits [57].

Core problems faced by individuals with ASD include impairments in interpersonal reciprocity and understanding the effects of their actions on others [54]. Common comorbidities of anxiety, mood, and personality disorders or attention-deficit/hyperactivity disorder (ADHD) may intensify impaired coping ability. Early comorbidity may further impair later social adjustment in youths with ASD, highlighting the importance of early diagnosis and treatment [43].

ASD alone does not increase the risk for mass violence; this requires the presence of additional factors that interact with ASD features, such as deficits in social cognition and empathy, emotion-regulation deficits, and intense restricted interests [57; 58]. History of childhood neglect or abuse correlate with later criminal behavior. Comorbid psychopathy with ASD is rare but potentially very serious and a significant violence risk and threat assessment issue. At first assessment, it may be difficult to distinguish between the two because lack of empathy is characteristic of both disorders, but the underlying reasons differ [54; 57; 59; 60]. An increased intensity of preoccupations with disturbing or violent content is a possible warning sign [43].

Research suggesting ASD may be over-represented in mass shooters was investigated using the Mother Jones database of mass shootings (as noted, defined as at least four deaths in a single event). Evidence of ASD was evaluated in 75 cases, and 8% of perpetrators had a pre-event ASD diagnosis; this increased to 9% after adding Elliot Rodger, the Santa Barbara mass shooter [43]. An additional 21% of the cases had ASD traits or symptoms [43].

CULTURAL INFLUENCES

Mass shooting incidents have increased since the 2000s. With mental disorders alone negligibly related to mass shooting and not useful for predicting violent acts, researchers have looked to other explanations in the culture.

Culture of Celebrity, Narcissism, and Perverse Incentive

Since the 1990s, mass murders have not just increased, but have arguably taken on a different quality, especially mass shootings. With an American culture that promotes an influential value system centered on celebrity and fame, narcissism has been described as the classic American pathology. An upswing in the narcissistic values of American culture since the 1990s has also been documented [61; 62; 63].

Some critics have suggested that media attention makes mass killers into celebrities. A comparison of media coverage given to celebrities versus seven perpetrators of mass killings during 2013–2017 found the murderers received roughly $75 million in media coverage value. Some received more high-value coverage during their attack months than some of the most famous American celebrities, and media coverage exceeded public interest, as reflected in online searches and Twitter use [64].

Contagion, Copycat, and Columbine as Cultural Script

The idea of a "cultural script" has also been examined. A "cultural script" describes a schema, or a prescription, for behavior. Media and sociocultural factors have propagated a "script" of mass shootings that points to armed attack as a model for problem-solving—a "masculine" solution to lessen an inferior social position, especially for altering the shooter's reputation from a socially marginalized loser to a notorious antihero [27; 50]. Media attention to mass murder may perversely glamorize the act in the eyes of subsequent perpetrators; the instant notoriety feeds narcissistic pathology [9; 65].

Social media is an important contributing factor to this disturbing finding, given the appeal of fame, or rather infamy, without achievement other than successfully killing innocents [66]. Performative violence, a related concept, describes the construction of identity or position through a violent act that, by demanding audience attention and compelling the audience to look intently at the perpetrator and his or her act, fulfills perpetrator needs for recognition and acknowledgement of their existence and uniqueness [67].

Contagion and copycat effects are related but distinct. Contagion is imitation of the violent act, an effect active over days or weeks. Copycat is identification with the actor, an effect that may remain active for months or even years. Copycats can aggregate over time to become a cultural script [50]. School shooters are more likely than other types of mass murderers to commit copycat violence for achieving notoriety [28].

Perpetrators and plotters looked to past attacks for inspiration and operational details to cause even greater damage [68; 69]. The FBI examined 160 mass shootings committed after Columbine and found a copycat effect that was stronger and more pervasive than previously understood.

The 1999 Columbine shooting was a landmark event; the planning of this mass shooting was driven by rage and narcissistic desire for immortality. The perpetrators, Eric Harris and Dylan Klebold, uploaded videos of themselves firing guns, yelling into the camera about killing hundreds and starting a "revolution," and other content fantasizing about Hollywood directors fighting over their story. At the dawn of the Internet era, the Columbine offenders created a script for mass shooting [68; 69].

Mother Jones analyzed 74 plots and attacks by perpetrators claiming inspiration by Columbine. Of these, 53 plots were thwarted and 21 were completed and resulted in the deaths of 89 victims and injury of 126. Of these [68; 69]:

- The suspects often planned the attack on the anniversary of Columbine (≥14 cases).
- The goal was to outdo the Columbine body count (13 cases).
- The suspects referred to Harris/Klebold as heroes, idols, martyrs, or God (at least 10 cases).
- At least three suspects made pilgrimages to Columbine High School, two of which carried out rampages after returning home.

The "Columbine effect" describes this cultural script of aggregated copycats; mass shootings are ritualized and self-referential, with perpetrators identifying with past shooters. This expands beyond the Columbine legacy, with mass shooters citing many others before them. The Internet has propagated this script by increasing the ease by which perpetrators can study and idolize previous mass killers [27].

A universal reporting code has been recommended for appropriately covering these incidents and reducing "copycat" effects. This media guidance suggests avoiding emphasis on perpetrators and neither glorifying nor demonizing them, and emphasizing victim and community recovery efforts [9; 70].

Violent Video Game Consumption

The consumption of violent media, in particular violent first-person shooter video games, has been suggested as a factor contributing to a likelihood of committing violent acts. The shoot-to-kill style of first-person shooter games is considered highly arousing and violent.

This theory can be traced back to Columbine shooters Harris and Klebold, whose writings indicated they had used the video game *Doom* to prepare for their attack. Similarly, Anders Breivik claimed to have used the video game *Modern Warfare 2* during his preparation phase [71]. There is some evidence that exposure to media violence is a risk factor for aggressive behavior in youth, including violent criminal behavior [72]. However, other studies have found no link between video game violence and aggressive behaviors or reduced empathy in youth [73]. There is even less evidence of effects on adults, including adults with ASD [74].

It is important to note that most video game players do not commit violence, and most mass shooters have no documented history of violent media consumption. It has been suggested that player motivations, frustration, and the social context of play may influence the possible risks associated with violent video games [75].

Hegemonic Masculinity

It is important to note that masculinity, like all expressions of gender, is fluid, and each culture may have many types of masculinity available [252]. Hegemonic ("toxic") masculinity has not been clinically defined, but it is generally understood to mean "a set of values, established by men in power, that functions to include and exclude, and to organize society in gender unequal ways. It combines several features: a hierarchy of masculinities, differential access among men to power (over women and other men), and the interplay between men's identity, men's ideals, interactions, power, and patriarchy" [252]. This conceptualization of masculinity, based on the idea that men are inherently more powerful than women and some other men, is common in alt-right and far-right ideologies.

MASS SHOOTERS: PATHS TO VIOLENCE

Mass shootings are followed by a collective frustration, even anguish, over the inability to stop these incidents from recurring. Evidence from research on suicide and violence prediction and prevention can help explain why standard methods fail in thwarting mass shooters.

Suicide reduction has long relied on suicide prediction using risk factors to place patient suicide potential as low, moderate, or high. However, this approach fails to consider the fluidity of proximal factors that drive acute suicide behaviors. Today, experts believe suicide cannot be predicted but can be prevented, and this paradigm shift has transformed suicide prevention efforts [76].

Predicting future violence is likewise difficult. Predictive methods of assessing violent antisocial behavior rely on risk assessment, whereby risk factors are measured and used to statistically predict future violence. To examine the value of risk assessment, 409 patients detained for violent criminal behavior were evaluated and followed 12 months after discharge to the community. Risk assessment had little value in predicting future violence and could not identify essential risk factors that should be targeted to prevent violence [77].

Thus, predictive methods fail to identify future violence in mass shooters because predictor risk variables (e.g., criminal history, psychiatric diagnosis, drug history) are static factors that are causally and temporally unrelated to violence [77]. Standard

prediction and profiling methods cannot identify individuals posing a high, increasing, or imminent threat. Profiling is helpful in identifying perpetrators who have already acted violently, such as serial murderers, but is not useful with future mass shooters [66; 78].

One approach, based on the concept that targeted violence is distinct from affective violence, is already showing promise in interrupting mass shooters before they act [69; 78; 79; 80; 81; 82]. Targeted violence (also referred to as instrumental or predatory violence) is methodically planned against individuals, groups, or locations. Affective violence (also referred to as impulsive or emotional violence) is emotionally charged, impulsive, and reactive and typifies intimate partner violence (IPV). While affective violence is the most common subtype of violence, it does not accurately describe mass shootings. Mass shootings are considered an example of targeted violence, the endpoint of an understandable process of thinking and behavior that is neither spontaneous nor impulsive. Potential offenders on a pathway to targeted violence can be identified and prevented, but not usually predicted.

EVIDENCE-BASED PRACTICE RECOMMENDATION

The National Collaborating Centre for Mental Health recommends using a multidisciplinary approach that reflects the care setting when assessing and managing the risk of violence and aggression. Before assessing the risk of violence or aggression, take into account previous violent or aggressive episodes, because these are associated with an increased risk of future violence and aggression.

(https://www.nice.org.uk/guidance/ng10. Last accessed March 17, 2022.)

Level of Evidence: Expert Opinion/Consensus Statement

Two models have been developed and applied to describe, identify, and impede those on a pathway to acts of targeted violence. The Pathway to Violence Model was developed by the U.S. Secret Service from studying assassins and school shooters [78]. It describes a progression from grievance to violent attack and helps differentiate individuals who threaten and menace a target from those truly intent on committing violence. This model describes the underlying interaction of emotional and psychosocial factors [83; 84].

The Warning Behaviors Model uses pattern recognition of dynamic variables proximally related to violence that reveal pre-attack behaviors and violent intent. Unlike static risk factors, dynamic proximal factors are the best short-term indicators of targeted violence, because they point to intra-individual behavioral, cognitive, and emotional processes that signify decreasing, increasing, or imminent threat [40; 82; 85].

The Warning Behaviors Model captures superordinate behavioral and psychologic patterns that may represent changing or accelerating risk. This model is used extensively in targeted violence of school shooters and other public mass shooters, including violent extremists [40; 79; 80; 81; 85; 86].

Both models are complementary and overlapping, because state of mind and outward behaviors are inextricably intertwined. Understanding the pathways to targeted violence of mass shooters facilitates their disruption and prevention [26; 78; 79; 80; 81]. As discussed, prevention does not require prediction.

THE PATHWAY TO VIOLENCE MODEL

The Pathway to Violence Model does not suggest that all, or even many, people with a grievance will move to violent action [87]. However, the FBI states that among threat-management models, Pathway to Violence is best-suited to address the question of why persons perpetrate targeted violence [26].

Stages of the Pathway to Violence Model

Grievance

The first stage of the Pathway to Violence Model is a perceived injustice, threat, or loss of a highly personal significance. In this context, grievance refers to the cause of the offender's distress or resentment—a perception of having been wronged or treated unfairly or inappropriately. More than a feeling of anger, grievance can result in a desire, even a sense of mission, to right the wrong and achieve a measure of deserved justice. Grievance is more than a feeling of discontent or a short-lived, even explosive, expression of anger or frustration; it is a conclusion reached about the reason for the offender's suffering. A grievance is external to the offender, and by externalizing blame, the offender creates a target for retribution. The grievance becomes an organizing principle as the offender seeks to address the unjust treatment causing the anguish [87].

The grievance is exacerbated by a robust narcissism laced with an inflated sense of entitlement, privilege, or ability that, when perceived as unrecognized or insulted by others, results in an intolerable state, whereby the only compensatory relief to their sense of humiliation comes from rage and violent fantasy (i.e., ideation) [78]. However, few who are aggrieved progress to committing targeted violence.

Ideation

Those who become violent move from grievance to ideation as they realize violence is the appropriate means to address their grievance and make a conscious choice to violently harm others [83; 87].

Unable to find satisfaction or repair outside of violent fantasy, a "pseudocommando" warrior mentality may consume their thinking while simultaneously inflaming their narcissistic grandiosity. Revenge fantasies become inflexible and persistent because they provide desperately needed nourishment to injured self-esteem. A sense of (pseudo) power and control is gained by ruminating on vengeance [29]. Subjects often begin a fascination with previous attacks and attackers during the ideation stage, underscoring the notoriety and attention that often accompanies high-profile targeted violence [88].

Many persons who harbor profound grievances and violent revenge fantasies do not progress to violence and withdraw into an omnipotent fantasy of violent retribution [24]. Others become so enthralled by violent ideation and psychologically consumed by the compensatory relief it affords their fractured ego that they lose the desire or ability to pursue nonviolent means of resolution [78].

Research and Planning

Eventually, fantasy may escalate beyond ideation into action; research and planning bridges the gap between idea and action. During this stage, the offender takes concrete steps toward an attack and dedicates effort and energy toward the goal, which can include selecting and gathering information on the target, stalking the target, photographing targeted areas (e.g., classrooms, hallways, theaters), and charting out areas for explosive devices. Other behaviors can include Internet searches and conversing with likeminded others on social media or online [26; 78].

Preparation

During the preparation stage, the individual is accumulating the necessary weapon(s), ammunition, clothing, or other practical materials needed for an attack; the offender is also becoming psychologically prepared [78]. Other behaviors can include assembling equipment, confirming transportation routes, and/or attack rehearsal [26]. Kimveer Gill played a video game that re-enacted Columbine (considered a rehearsal) before killing one person and injuring 19 at Dawson College in Montreal in 2006 [45].

Breach

The offender assesses the level of security and barriers that must be defeated to gain close physical proximity to the target in the breach stage. Without normal access to a targeted facility, the offender may breach by conducting a "dry run" penetration test, intruding into a facility where he or she does not have legitimate access to identify security countermeasures. Breaching can also involve the smuggling of weapons into a classroom or theater, and then waiting to attack, or dressing as a security guard or package delivery person for a non-forcible entry [78; 89].

THEMES IN PRE-ATTACK COMMUNICATIONS OF 12 MASS SHOOTERS	
Theme	**Description**
Nihilism	An extreme form of self-centeredness An utterly intolerable narcissistic injury becomes nihilistic—nothing matters, everything is meaningless
Ego survival and revenge	The seeking of vengeance as a way of broadcasting one's pain
Heroic revenge fantasy	The conviction that, by performing an act of violence, an individual will be freed from persecution
Pseudocommando mindset	A cognitive perspective incorporating innate distrust and a persecutory worldview, creating a combination of narcissism and paranoia with persecution, envy, and obliteration
Entitlement	A dimension of destructive narcissism with extreme lack of empathy, whereby the individual feels he or she has a right to what others have and is thus justified in engendering harm
Envy	An aspect of pathologic narcissism whereby the individual not only wants what others have, but is willing to destroy their enjoyment of the coveted thing or the state of this enjoyment
Source: [28; 29; 46; 86]	*Table 1*

Attack

The final stage is the attack. The offender launches a destructive, nihilistic assault, attempting to completely dominate the targeted institution or person. The attack typically represents the manifestation of two desired states [78; 90]:

- Perceived infamy and notoriety from the inevitable media coverage
- A sense of omnipotent—but transient—control

The offender's depleted narcissism fuels an overwhelming desire for omnipotent control over the target. The offender may realize the attack will result in his or her arrest or death, but the fleeting experience of control is perceived as transformative [78; 90].

The Pathway to Violence Model in Research

The initial Pathway to Violence stages have been applied to analysis of the progression of paranoid cognitions observed in mass murderers. Threat perception occurs when perceived personal inadequacy interacts with real or imagined perception of threat and expectations of persecution. Threats typically involve some form of social or peer rejection (i.e., a grievance). Whether delusional or not, this perception triggers feelings of humiliation and anger, if not hatred, contempt and disgust for the perceived persecutors [24].

Manifestos and other written communications of mass shooters show recurrent themes of persecution, alienation, envy, and vengefulness. These were identified by psycholinguistic analysis of pre-attack communications from 12 mass shooters (***Table 1***) [28; 46].

THE WARNING BEHAVIORS MODEL

The Warning Behaviors Model has two components: proximal warning behaviors and distal characteristics. Some proximal and distal items reflect the original development for use in terrorism, but the model has been applied to all forms of mass violence.

Proximal Warning Behaviors

Pathway Behavior

Any behavior described in the Pathway to Violence Model is defined in the Warning Behaviors Model as a pathway behavior, including research, planning, preparation, or implementation of a targeted attack [83].

Sirhan Sirhan assassinated Senator Robert F. Kennedy on June 5, 1968, the first anniversary of the Six-Day War. Sirhan was not Muslim but identified closely with the Palestinians and saw Kennedy's vote to sell 50 combat jets to Israel in January 1968 as a betrayal of his people. In the five months leading to the attack, Sirhan secured a handgun, practiced at a shooting range, and made at least four approaches to Kennedy in public venues before shooting him in the pantry at the Ambassador Hotel in Los Angeles, California. This assassination began the U.S. Secret Service's practice of protecting aspiring presidential candidates [79]. Each of the actions he took would be categorized as a pathway behavior.

Fixation

Fixation is defined as an extreme preoccupation with another person, activity, or idea, often involving a grievance and a personal cause. With increasingly pathologic preoccupation comes social and occupational deterioration. Fixation is observed by increasing perseveration on persons or cause; increasingly strident opinion, negative characterization of the object of fixation, and angry emotional undertone; and impact on family or associates of the object of fixation, if present and aware [50].

In 2007, during his psychiatric residency, Nidal Hasan, the 2009 Fort Hood, Texas, mass killer, gave a psychiatric presentation titled, "The Koranic World View as it relates to Muslims in the Military." Note the disconnect between topic and context of the lecture in some of these quotes [79]:

- "We love death more than you love life!"
- "Fighting to establish an Islamic state to please God, even by force, is condoned by Islam."
- "Muslim soldiers should not serve in any capacity that renders them at risk to hurt/kill believers unjustly."

Hasan became increasingly vocal in his opposition to the Afghanistan and Iraq wars and gave a subsequent psychiatric presentation titled, "Why the War on Terror is a War on Islam." In late 2008, Hasan sent 18 emails to Anwar al-Awlaki in Yemen asking whether killing American soldiers and officers was religiously legitimate. His fixation was a cause, but it became deeply personal because his grievance against the wars in the Middle East went unheeded [79].

Identification

Mass shooters often have behavior demonstrating a warrior mentality or psychologic desire to be a pseudocommando. These individuals identify with military or law enforcement weapons, uniforms, or paraphernalia, or with previous attackers. They may self-proclaim as agents to advance a cause or belief system [79].

Fixation is what one constantly thinks about, and identification is what one becomes. Fixation and identification are key warning behaviors; the evolution from preoccupation to self-identity distinguishes (with a large effect size) attackers from persons of concern without violent intent [50].

An example of this type of behavior is Anders Breivik, who in 2011 bombed several Norwegian government buildings (killing 8 people) and hours later shot and killed 69 young people. Breivik identified himself as a reincarnated Knights Templar, the militant spear of the 12th-century Christian Crusades against the Muslims, and saw himself as a soldier fighting to free his people from Muslim immigrants and multiculturalism. In photos, Breivik wore homemade uniforms emblematic of his identification. He developed an affinity for American terrorists Ted Kaczynski (and plagiarized his writings) and Timothy McVeigh, writing that McVeigh probably felt as he did when making his bombs [79].

As noted, school shooters recurrently identify with the Columbine perpetrators. This is exemplified by the assailant who killed 10 victims and injured at least another 10 at his high school in Santa Fe, Texas, in 2018. On the day of the attack, he wore a black trench coat in 90-degree weather [91].

Novel Aggression

Novel aggression is an act of violence that appears unrelated to any pathway behavior and is committed for the first time. This behavior tests the perpetrator's ability to become violent and can be thought of as experimental aggression [37].

Energy Burst

Mass shooters often display an increase in frequency, duration, or variety of warning behaviors related to a target, even if the behaviors appear innocuous, in the days or weeks before an attack [37]. For example, Jared Loughner, in the 12 hours before his attack on U.S. Representative Gabrielle Giffords and bystanders in a supermarket in 2011, engaged in the following, according to police reports [79]:

> Drops off 35-mm film at Walgreen's before midnight, checks into motel shortly after midnight...searches web for 'assassins' and 'lethal injection'...at 02:19 picks up photos, makes a purchase, leaves telephone message with friend...at 04:12 posts to Myspace page a photo of his Glock pistol and the words 'Goodbye friends.'
>
> At 06:00, visits Walmart and Circle K stores, unable to purchase ammunition at first Walmart, purchases 9-mm full metal jacket ammo and diaper bag at 07:27... stopped by police officer for running a red light...went home but was confronted by father, runs away...returns to Circle K, gets a cab, goes to supermarket where he insists on getting correct change for cab ride to the shopping center where Congresswoman Giffords was speaking...16 minutes later at 10:10, opens fire, killing 6 and wounding 13 people. Tackled by three senior citizens when he attempts to reload.

Leakage

Leakage is defined as intentions or plans of violence expressed to another person or posted on the Internet that raise concern. Leakage may be overt (e.g., "I'm going to kill my supervisor and his cohorts tomorrow.") or covert (e.g., "Don't come to work tomorrow, but watch the news.") [37].

This warning behavior is one of the strongest warning signs an individual intends to commit targeted violence [40]. Leakage is nearly ubiquitous across all targeted violence offender groups, including juvenile and adult mass murderers, attackers of public figures, school shooters, and lone actor terrorists. Grievance is strongly correlated with leakage, but no single mass shooter "profile" is more likely than others to leak intent [87]. Threat assessment professionals should not expect leakage based on a subject type (e.g., young, with criminal history) and be reassured by its absence, or be surprised by its presence with a subject type (e.g., well-educated professional, no criminal record) and discount its potential significance [87].

Would-be offenders frequently express threats or intentions to others verbally or in writing, posting a manifesto or on online fora. In most school shootings, at least one person knew about the killers' intentions [28; 40; 92; 93].

Leakage before a planned attack was acknowledged by Tucson offender Loughner in his writings: "Of course, I kept a journal. Don't people like me always keep a journal? It's part of the whole thing. It was me against the world" [28].

On December 20, 2010—19 days before the attack—Loughner wrote on his MySpace page: "I HAVE THIS HUGE GOAL AT THE END OF MY LIFE: 165 rounds fired in a minute!" A week earlier, Loughner wrote: "I'll see you on National TV! This is a foreshadow...why doesn't anyone talk to me?" [37].

Numerous mass shootings have been prevented because people reported hearing or observing oral or written threats of violence [69; 94]. In 57 cases of thwarted attacks, manifestos were frequently posted online by the would-be offenders who made highly credible threats [94].

In many other cases, persons aware of the threatened mass violence did not alert anyone in authority. By reporting such advance communications, individuals can help prevent planned acts of mass violence.

To encourage adolescents to speak out, many school administrators have provided anonymous avenues for students to make reports without fear of repercussion. The U.S. Department of Homeland Security implemented the "If You See Something, Say Something" campaign as a nationwide means of encouraging citizen reporting and community safety [28; 86; 95; 96; 250].

Many health and mental health professionals are governed by a duty to warn if they are aware that a patient may be a risk to others. This applies to cases of mass shooters just as it does in cases of intimate partner or family violence.

Directly Communicated Threat

Some perpetrators will make an unambiguously stated or written threat to either a target or to law enforcement expressing intent to commit violence. For decades, law enforcement academies taught that explicit threats were a precursor to violence [66]. This is valid in the context of a current or past sexual intimate; in these cases, directly communicated threats indicate heightened risk of violence against the target, referred to as the "intimacy effect." However, in targeted violence, this is disproven, and directly communicated threats are rare.

Last Resort

Last resorts are communications or actions indicating a "violent-action imperative" or time imperative and increasing desperation or distress, forcing the subject into a position of last resort. No alternative to violence is perceived, and the individual believes the consequences are justified; the subject feels trapped [79; 85].

Days after White supremacist Dylann Roof perpetrated his mass murder in a South Carolina church in 2015, his website and manifesto were discovered. These writings provide a good example of last resort thinking. Roof had written [79]:

> I have no choice. I am not in the position to, alone, go into the ghetto and fight. I chose Charleston because it is [the] most historic city in my state, and at one time had the highest ratio of blacks to Whites in the country. We have no skinheads, no real KKK [Ku Klux Klan], no one doing anything but talking on the Internet. Well, someone has to have the bravery to take it to the real world, and I guess that has to be me.

Evidence of Validity

The Terrorist Radicalization Assessment Protocol-18 (TRAP-18) combines the 8 proximal warning behaviors and 10 distal characteristics into a single assessment instrument for mental health providers, law enforcement, and intelligence/security professionals. Developed for threat assessment of violent extremists, use of TRAP-18 has expanded to all potential lone-actor perpetrators of targeted violence [81].

The validity of TRAP-18 was examined in 111 violent Islamist, right-wing, and single-issue extremist cases in 1990–2014 [81]. Researchers found that 70% demonstrated at least half of the 18 TRAP variables and more than 77% showed all four warning behaviors (i.e., pathway, fixation, identification, and leakage). Leakage (85%) was the most frequent proximal warning behavior. Less frequent proximal warning behaviors were directly communicated threat (22%), novel aggression (17%), and energy burst (8%). Few differences were observed among extremist ideology groups. The authors concluded the TRAP-18 appeared useful across the spectrum of ideologies that drive targeted violence [81].

A separate study examined 33 mass murderers in Germany from 2000–2010. An average of 6.11 warning behaviors were present in each perpetrator. The authors concluded a pattern of proximal warning behaviors can be expected to precede targeted mass murder [80; 81].

An FBI analysis found the observable behaviors that are most suggestive of pre-attack planning of targeted mass violence include [26]:

- Novel or greatly increased interest in guns and/or explosives
- Recent, significant real or perceived personal loss or humiliation
- Surveillance behaviors
- Sudden changes in social media behavior
- Statements or farewell writings

Indicators of potential imminence include [26]:

- Energy burst, end-of-life planning, and/or last resort behavior
- Sudden cessation of medications or other substance use
- Sudden withdrawal from routine life pattern

Distal Characteristics of Targeted Violence

While proximal warning behaviors are signs of growing or imminent threat of targeted violence, distal characteristics are long-term psychodynamic and psychosocial factors that may be necessary but not sufficient for targeted violence [66]. The most frequently identified distal characteristics in the TRAP-18 validation study were framed by an ideology (100%), changes in thinking and emotion (88%), failure of sex-pair bonding (84%), and personal grievance and moral outrage (78%) [81].

Personal Grievance and Moral Outrage

Many perpetrators express a personal grievance (typically a major loss in love or work, with anger, humiliation, and blaming others) combined with moral outrage over historical or contemporaneous religious or political events. This characteristic largely overlaps with stage 1 in the Pathway to Violence Model [66].

Moral outrage can develop via vicarious identification with a victimized group when the offender has not personally experienced the victimized suffering. An example of this type of thinking is evidenced by Timothy McVeigh, the Oklahoma City bomber. He displayed superior intelligence, hypervigilant narcissist characteristics, and "ultimate warrior" identification. He was humiliated by rejection from the Special Forces (i.e., the grievance). He was also abandoned by his mother and distrusted women, with a sexualized interest in weapons. McVeigh saw himself as the first hero of a second American revolution. His research, planning, and preparation began following moral outrage over the Branch Davidian compound assault by the FBI and the ATF.

Framed by an Ideology

The presence of an ideology or belief system that justifies the intent to act is a common characteristic of mass shooters [66]. The intent to commit an act of mass violence is framed by an ideology or belief system. Violence is sanctioned by an external moral authority, but the ideology is often selectively evaluated for words and phrases that justify targeted violence. Morality becomes a simplistic choice between good and evil.

Ideologic violence is perpetrated against a perceived enemy to advance a specific belief system and frequently to purify in religious or racial extremism. Purification may not be the only goal for violence, but it is often central to the paranoid belief that one is surrounded by contaminants and toxins, including women as "temptresses." A consistent theme in the thinking of anti-abortion terrorists (e.g., James Kopp, Eric Rudolph, Robert Dear, Paul Hill) is female sexual promiscuity as the cause of desire for abortion [90].

Failure to Affiliate with an Extremist Group

Rejection by an extremist group the actor wants to join, due to either lifelong interpersonal problems or beliefs seen as too extreme by others in the group, is a distal characteristic of violent extremists. The rejection further isolates and may harden the belief system and violent intent. In one study, all 10 violent extremists (i.e., Timothy McVeigh, Joseph Franklin, John Salvi, Eric Rudolph, Buford Furrow, Ted Kaczynski, Benjamin Smith, Paul Hill, Michael Griffin, and Terry Nichols) attempted to affiliate

with an extremist group, but their rejection led to further hardening of radical position and violent intent [66]. In the specific case of Paul Hill, he was a minister of a Presbyterian Church in Florida, but was excommunicated for his radicalization in the anti-abortion extremist movement. Three years after his excommunication, Hill shot and killed Paul Britton, MD, and his bodyguard James Barrett.

Dependence on Virtual Communities

In early studies of violent extremists, online support was noted to be greater than off-line contact with other extremists. However, this item is now believed to be obsolete, with online connectivity the norm for much of the population.

Thwarted Occupational Goals

Thwarted success is endemic for many young people. The distinction is that future offenders become disillusioned with the surrounding social order; resentful of narcissistic wounding from a history of slights, rejections, and failures; and find a target for their intense grievance and hatred [40].

Changes in Thinking and Emotion

Over time, the thoughts of mass shooters and their expression become more strident, simplistic, and absolute. Prior to a violent attack, argument, persuasion, and critical thinking ceases, and dogmatic preaching and imposition of one's beliefs on others begins. Beliefs become more rigid, simplistic, and absolute; a "moral authority" is embraced. Violence is cloaked in self-righteousness and the pretense of superior belief.

Fixation warning behavior may be apparent during these changes, but fixation relates to thought content, and this distal characteristic relates to changing interpersonal expression of that content. Expressiveness may suddenly diminish when the subject enters later stages of the pathway [66]. The individual may appear happier and/or more at peace after having made the decision to act.

Failure of Sexual Pair Bonding

The failure to form a sexually intimate relationship from puberty until the violent offense and death or incarceration is a common characteristic [81]. Incels (involuntary celibate men) are individuals who, having failed to find women they can talk or coerce into sex, radicalize their anger into calls of violence [97]. More than believing they are entitled to sex but unable to find a willing partner, their hatred of women stems from believing women are (or should feel) required to give them sex but purposefully withhold it. This distinction is crucial to understanding the disproportionality of rage against women [98]. Several mass shooters/murderers since 2015 have been identified as incels, including Elliot Rodger, Alek Minassian, Chris Harper-Mercer, and Scott Beierle.

In addition to the many school shooters mentioned, the 84% prevalence of failure of sex-pair bonding among 111 violent extremists is striking and may represent a sensitive indicator of distal risk [81]. None of the following perpetrators had any evidence of normal sexually intimate relationships: Anders Breivik, Eric Rudolph, Buford Furrow, Malik Hasan, Mohamed Atta, Marwan al-Shehhi, Ted Kaczynski, or Timothy McVeigh [40].

Mental Disorder

The presence of a mental disorder by history or at the time of the offense is common. However, with violence and mental illness, it is essential to address the behavior, not the diagnosis [26].

Greater Creativity and Innovation

Operating outside the structure of extremist groups may promote greater innovation [79; 80; 81]. One example of this characteristic is found in Bruce Ivins, a prominent anthrax researcher in the U.S. government. In the Fall of 2001, Ivins is believed to have killed 5 people and injured 17 in two waves of anthrax attacks. His motives included revenge, need for personal validation, career preservation, and professional redemption. Ivins was also obsessed

with a sorority house, which he stalked. (Note: Ivins died by suicide before he could be charged or tried for these crimes, and the FBI's conclusions have been contested since it concluded its investigation.)

History of Criminal Violence

A history of instrumental criminal violence before the act of targeted violence is considered a distal characteristic of mass violence perpetrators.

Warning Behaviors Model
Case Illustration: Nikolas Cruz

In the case documents of Cruz, who perpetrated the 2018 Marjory Stoneman Douglas High School shooting in Parkland, Florida, pre-attack communications or manifestos are not mentioned, but observations by others are replete with distal risk characteristics and proximal warning behaviors of targeted violence [99].

Cruz was diagnosed with developmental delays at 3 years of age and, subsequently, with autism, depression, ADHD, and emotional behavioral disability. Obsessive-compulsive and anger issues were also noted. Over 10 years, the Broward Sheriff's Office responded to 23 calls by his mother for help when Cruz was violent.

In 8th grade, Cruz was placed in a school for students with emotional problems. In 10th grade, his grades were good, but he was fascinated by guns and death. Weeks after transferring to Marjory Stoneman Douglas High School to begin 11th grade, Cruz posted on social media that he planned to "shoot up" the school. He had become preoccupied with wars, death, and killing. Cruz had trouble making friends, and his peers saw him as peculiar and socially awkward.

Investigated after cutting his arms on social media, Cruz stated he planned on buying a gun. A month after quitting mental health treatment in January 2017, he assaulted a classmate and was expelled from the high school. Cruz purchased the AR-15 used in the massacre one year later. Later that year, he was reported to the FBI after stating he wanted to be a professional school shooter on a YouTube page.

In November 2017, Cruz went to live with neighbors after his mother died. Within weeks, the neighbors called the County Sheriff when kicking Cruz out for violent behavior, stating they feared him because he had eight guns he kept with a friend and that he had put a gun to the head of someone several times. The police received a call the next day that Cruz was collecting guns and knives and could be a "school shooter in the making."

Another family in Parkland took him in. In early January 2018, a caller told the FBI she wanted to get her fears about Cruz's potential for violence off her chest. Citing his social media statements and photos and seeing his behaviors with guns, "It's alarming to see these pictures, to know what he's capable of doing, and what could happen."

In the two weeks before the shooting, Cruz told the family he was living with that he was happier than he had ever been before. On February 14, 2018, Cruz arrived at Marjory Stoneman Douglas High with his AR-15 at 2:06 p.m., when school was letting out for the day, and killed 17 classmates and staff and injured at least another 17 before surrendering.

Discussion: *What risk characteristics and proximal warning behaviors did Cruz exhibit?*

Warning Behaviors in Practice

The Warning Behaviors Model is used by professionals trained in threat assessment and management to detect and disrupt targeted violence, as shown in the following case summaries [69; 78; 82].

*The Threat Assessment and Management Unit of the Los Angeles Police Department (LAPD) described a firefighting recruit, enraged when dismissed from the academy, told another trainee, "When they fire me, I'm coming back here to f***ing massacre everyone." The trainee informed the academy, which alerted the LAPD, and a search warrant was obtained. Finding an explosive device and a dozen assault-style rifles and handguns, the impression was of "someone absolutely geared to go to war." The Threat Unit leader stated had there not been rapid intervention, an imminent mass shooting was certain.*

Police in Keizer, Oregon, received a tip about high school junior from another student who the student had told he was angry at other students and was bringing a gun to school. The student of concern was interviewed and admitted being unhappy, but denied intent to harm others. Two months later, the student was admitted to a psychiatric facility for a suicide attempt. The school district's threat assessment and management team of psychologists, counselors, and police interviewed his friends, family, and teachers before the student's release from the facility and found additional warning signs in notebooks in which he raged about grievances toward a girl who rejected him and students he despised; he included both on a hit list. He had also attempted to buy a gun.

The threat assessment and management team determined the student lacked access to a gun and launched a "wrap-around intervention" of counseling, in-home tutoring, and helping him pursue his interests in music and computers. Over the next 18 months, the student's outlook improved, the warning signs dissipated, he graduated high school, and his case was transferred to the county adult threat assessment and management team. A psychologist on the threat assessment and management team stated they largely helped redirect his focus onto his strengths while maintaining close but casual and supportive contact.

Use of threat assessment and management is demonstrably effective in preventing targeted mass violence. However, threat assessment and management remains largely unknown in mental health, law enforcement, education, and social service professional communities.

Psychiatrist Jerome Knoll, an expert in mass murderers and targeted violence, states that mass shootings will diminish only to the extent that society takes the following meaningful actions [24]:

- Third-party reporting of concerns or leaked intent
- Sensible nationwide gun control laws
- Media responsibility

When a person is believed to be on a path to violence, health and mental health professionals should act decisively. The American Psychological Association (APA) has identified several approaches to effective gun violence prevention at the individual and societal levels [251]. At the individual level, this involves addressing underlying issues that are triggering desperation, including referring the person to or providing mental health services and other sources of support. As discussed, psychiatric hospitalization may be needed to address despondence and suicidality. Nonpsychiatric resources can also help alleviate the individual's problems or concerns and include conflict resolution, credit counseling, job placement assistance, academic accommodations, veterans' services, pastoral counseling, and disability services [251]. At the macro, or societal, level, the APA recommends a comprehensive approach that engages the many stakeholders involved, including community and public safety officials, schools, workplaces, neighborhoods, mental health and public health systems, and faith-based groups, to develop laws, policies, and community outreach programs [251].

Warning Behaviors and Impulsivity

In some cases, perpetrators of targeted violence act impulsively in response to a triggering event of loss and humiliation. These precipitous attacks fail to include the often-considerable planning and preparations already carried out. Such cases are the exception, but point to the complexity and fluidity of factors and their interaction that move an individual from grievance to perpetration [100].

PATHWAY TO TARGETED VIOLENCE IN THE WORKPLACE

Mass shooters who target their current or former workplace largely resemble other targeted violence perpetrators. These offenders are almost always aggrieved or disgruntled employees or ex-employees whose explosion of murderous rage is the culmination of a perceived rejection, a felt injustice, and determination to seek revenge. They are typified by paranoid and/or narcissistic traits, blame others for their problems, and feel unjustly wronged. Strong persecutory themes reflect an amplified narcissistic injury [9; 24].

The failed Atlanta day trader Mark Barton, who killed 12 people and injured 13 more in 1999, left a suicide note stating "I don't plan to live very much longer, just long enough to kill as many of the people that greedily sought my destruction" [9; 24].

Perpetrators of targeted workplace homicide progress through the Pathway and Warning Behaviors stages [79; 80]:

- Begins with a grievance, a thinking pattern that blames everyone else, and an angry, ashamed emotional state.
- The humiliating event (e.g., loss of status, perceived rejection at home or work) is delusional, reality-based or both.
- Vengeful thoughts develop into violent fantasies. Most individuals do not go further; their grievance and vengeful fantasies eventually resolve.
- Very few see violence as the only solution; a decision to act is captured by the acronym JACA:
  - The act is **J**ustified.
  - There is no **A**lternative.
  - I accept the **C**onsequences.
  - I am **A**ble to do this.
- From this point, the perpetrator progresses to research, planning, and preparation.

EXTREMIST MASS VIOLENCE: THE PERPETRATORS

Mass violence may be committed for personal or ideologic motive, but many former distinctions between the two have dissolved. The Warning Behaviors Model, initially applied to ideologic terrorism, was later found similarly reliable and valid with non-ideologic targeted mass violence, and mass shootings fueled by personal or ideologic motive often appear identical. The paths to targeted violence of both offender types largely overlap, and both originate from grievance and alienation. Extremist violence purported to advance an ideology is frequently grievance-driven violence cloaked in ideology.

Most persons with extreme beliefs do not commit extremist violence, as can be demonstrated with a pyramid model. The large base represents the masses of aggrieved, alienated individuals; the substantially narrow midpoint represents the aggrieved who develop extreme beliefs; and the tiny tip of the pyramid represents individuals with extreme beliefs who commit extremist violence [101].

CORE CONCEPTS

The way that threat is understood and addressed is profoundly influenced by how the threat is defined. The literature on radicalization, extremism, and terrorism includes inconsistent and incorrect use of key terms and concepts, and no two countries define "radicalization" the same [102; 103].

Radicalism, Extremism, and Violent Extremism

Radicalization is a process that intends to transform thinking, belief, and perception from socially normative to extremist, but this term frequently conflates extremism, radicalism, and terrorism. Radicalism describes intent to overthrow a status quo, not necessarily using illegal or violent means. Extremism refers to deviation from a norm. Radicalism and extremism are not societal threats unless connected to violence or inciting hatred; neither automatically leads to violence, and almost all of those with radical extreme ideas never act on them [101; 102; 104].

Essential distinctions are extremist ideology versus behavior and movement from non-violence to violence [101; 105]. "Violent ideology" and "violent extremist beliefs" are misnomers. Most individuals who harbor extreme beliefs/extremist ideologies do not commit violence to advance the belief or ideology [101]. Individual factors, not ideology, largely influence extremist violence (as will be discussed later in this course).

"Lone actors" self-radicalize without formal terrorist network affiliation, support, or influence. Social movement theory historically viewed lone-actor terrorism as an anomaly, but this long-standing paradigm is mostly obsolete [106]. Radicalization is a distinctly social process, now primarily online instead of offline. Predating the Internet, Unabomber Ted Kaczynski is one of few truly self-radicalized terrorists [107].

Terrorism

The terrorist attack on September 11, 2001, murdered 2,969 people in New York, Virginia, and Pennsylvania. Hundreds more, including many first responders, lost their lives to health complications from proximity to Ground Zero in New York City. This attack by Islamist extremists caused almost 18 times the fatalities of the 1995 Oklahoma City bombing, America's second deadliest terrorist attack. From the extreme loss of life and physical destruction, 9/11 has eclipsed all other terrorist events in U.S. history and continues to shape perceptions of terrorism and its perpetrators [108].

Terrorism is defined by the Central Intelligence Agency (CIA) and U.S. State Department as premeditated, politically motivated violence against noncombatant targets by non-state actors, usually intended to influence an audience. Counterterrorism experts consider this definition accurate, in contrast to the description used by other U.S. governmental agencies of "coercion through fear or intimidation" [109].

Islamist terrorists often intend to incite anger, not fear. By provoking aggressive over-reaction that victimizes Muslims previously unsympathetic to Islamist extremist violence, the goal of increasing future support and vulnerability to radicalization is achieved [109]. Solely defining fear as the objective perpetuates the idea that not appearing terrorized by terrorism is to overcome it. This promotes aggressive over-reach and civil rights violations, which feed terrorist propaganda and recruitment efforts [110].

Terrorism is not defined by lethality, and violence includes property destruction. For example, terrorist acts by far-left animal-rights and environmentalist extremists in the 1990s and 2000s targeted property and not people. Horrific mass violence is not terrorism when ideologic goals or motives are absent [111; 112].

The distinguishing feature of terrorism is the mens rea, or intent, of the perpetrated act [113]. Terrorist acts are synonymous with extremist violence, but terrorism is not synonymous with extremist ideology. Acts of terrorism/extremist violence can be motivated or inspired by extremist ideology.

Ambiguous Motivation

Violent attacks with ambiguous or multiple goals are challenging to define. In the 2015 mass shooting in San Bernardino, the perpetrators radicalized to Islamist extremist violence during Mideast travel but were familiar to the victims of this workplace massacre, making personal grievance impossible to rule out as a motive. A hypothetical middle-aged White man attacking a Planned Parenthood clinic could be terrorism inspired by extremist anti-abortion ideology or IPV against his wife employed by the clinic; a hypothetical young Muslim woman attacking an office building could be inspired by radical Islamism or by personal retribution [111].

Assigning terrorist, criminal, or personal motivation to targeted violence is inherently subjective. Research demonstrates that some attackers cloak their motives with political rhetoric to construct a narrative that legitimizes their acts, and so taking statements about political motivation at face value should be avoided. Described as "murderers in search of a cause," such actors may "upgrade" their violence by flavoring it with a political motive, when in fact it is driven by grudges or other personal motives [67; 114]. Many attacks in 2016–2017 appeared linked to Islamism, but open-source reporting indicated the purported religiosity of attackers was suspect [113].

An example is the 2017 murder of a Denver security guard by Joshua Cummings, a White man who had recently converted to Islam. When captured, he stated his allegiance to the Islamic State of Iraq and the Levant (ISIS) but committed the murder for the "pleasure of Allah," and not on behalf of ISIS [115]. Placed on a terrorism watch list after leaders of a local mosque reported him as suspicious and possibly radicalized, Cummings had a long history of threatening violence to police. No contact or connection with any Islamist group was found. The Denver Chief of Police concluded Cummings was "looking for attention" with his ISIS-related statements [116].

Another example is the 2019 Boulder, Colorado, shooting at a King Soopers Supermarket by Ahmad Al Aliwi Alissa, a 21-year-old man who had immigrated to the United States from Syria as a toddler [258]. Ten people were killed in this incident. Alissa's motives for this shooting remain unclear, with bullying, perceived Islamophobia, religious beliefs, and mental instability (paranoia) all considered. In 2021, he was found incompetent to stand trial [259].

Violence can also be motivated by extreme beliefs that are denied by the assailant. Following his assassination attempt on FDR, Giuseppe Zangara rejected any anarchist influence or inspiration, but repeatedly mentioned his sympathy for poor people everywhere and a bitter resentment of capitalists and heads of state for their money that drove his desire to kill [6].

EXTREMIST IDEOLOGIES

In the post-9/11 era, Islamist extremism has defined public perceptions of terrorism and governmental targeting of counter-terrorism efforts in both the United States and European Union [105]. However, over the last 100 years in the United States, extremist violence has been perpetrated to advance a broad range of extreme ideologies, the nature of which has changed over time. The temporal appearance of extremist violence in Europe and the United States shows that broader political and economic changes have influenced the changing nature of terrorist motivation, with these factors transcending national borders.

Temporal Appearance of Extremism in the United States and Europe

Researchers examining terrorist motivation in response to broader sociocultural and geopolitical changes have identified five terrorism "waves" in the United States and Europe beginning in the 19th century [1; 3; 113].

The evolution of terrorism in the United States began in the 1880s with the anarchist wave, which lasted roughly 40 years, followed in the 1920s by an anti-colonial wave, which lasted to the 1960s, then a new left wave, which in turn faded as the religious wave formed [113].

The Anarchist Wave

The anarchist terrorists and assassins of heads of state in the late 1800s and early 1900s committed extreme acts to advance an ideologic/political goal, but had virtually no interaction with each other, and a shared understanding of a common purpose was improbable. On these dimensions, the anarchists were the precursors of current "lone-actor" violent extremists [113].

The Anti-Colonial Wave (Nationalist-Separatist)

The anti-colonial wave began in the 1920s in reaction to the vast international reorganization and technologic innovation following WWI, described by some as the onset of globalization. Extremist violence during anti-colonial and new left waves was coordinated and group-led [113].

This wave was typified by groups such as Fatah and the Irish Republican Army, joined by members who continued the mission of their parents as minority groups seeking liberation from their colonial oppressors or from ruling majorities in their country [1; 3].

The New Left Wave (Social-Revolutionary)

Extremist groups of the new left wave are typified by groups such as the Weather Underground, the Symbionese Liberation Army, the Red Army Faction in Germany, and other far-left extremist groups in the 1960s and 1970s, who rebelled against their parents' generation's loyalty to the regime or ruling structure [1; 3].

The former Soviet Union was the bastion of Communism and backer of many leftist terrorist-sponsor nations. Its collapse substantially contributed to the demise of the new left wave and rise of the religious wave. It also propelled, as an unforeseen consequence of support to the Mujahideen, resistance in Afghanistan [113].

The Religious Extremism Wave

The religious wave of transnational Islamism emerged in the 1980s and can be divided into four sub-waves [113; 117]. The initial sub-wave propagated beliefs of an international oppression of Muslims, which drew religiously inspired fighters to join the Mujahideen in the Afghanistan conflict against the Soviet Union. This sub-wave included Osama bin Laden and other original al-Qaeda members. The second sub-wave involved the Bosnia, Chechnya, and Kashmir conflicts and the 9/11 attacks. These violent Salafi extremists were generally middle class and educated; hardened criminals were nearly absent. The third sub-wave emerged in the wake of the Iraq War as "homegrown" rather than international extremists. The fourth sub-wave emerged in 2010–2014 with ISIS leaders and members substantially lower in education and higher in criminal histories than prior sub-waves, and with sole actors in the United States inspired by violent Salafi extremist leaders.

In each successive sub-wave, the "religiosity" of participants noticeably declined from the preceding sub-wave. Anti-terrorist experts described this pattern as an "extremist social trend," with individuals radicalized to violence by extremist interpretation of Islam replaced by what are best described as "Islamized radicals." In the fourth wave, 90% were motivated for personal reasons, including looking for a fight, adventure, or revenge against perceived rejection. Religion was not the primary driver of this movement [118; 119]. Corroboration came from recent interviews of former al-Qaeda members, describing being attracted to terrorism motivated primarily by a pre-existing anger and alienation related to childhood abuse or trauma, lack of integration and assimilation, and/or socioeconomic grievances. Foreign policy grievances were described as a channel for releasing deeply held tensions, instead of a primary motive [113].

This decline in "religiosity" is indicative of a wider change in the "extremist social trend" extending far beyond Islamism. In aggregate, these factors indicate the religious wave is dissipating, with the Western world progressing into terrorism's fifth wave [113].

The Lone Actor Wave

The emerging terrorist actors are motivated by the rhetoric of extreme ideologies through online exposure, instead of affiliation with extremist groups offline. Lone actors, typified by Dylann Roof and Anders Breivik, have much in common with the first wave Anarchists [1; 3]. The Internet alone is not driving radicalization but serves as a catalyst with wider societal changes the root cause [103].

Individuals with a grievance can find previously inaccessible ideologies that may provide "frame alignment" to their grievances and failures. They may not fully understand the ideology but can latch onto it in ways not previously possible. The far-reaching societal changes echo the conditions during the anarchist wave. It is premature to determine if the next phase of terrorism represents a new wave, or a loop that continues to mirror, at least in part, the anarchist ancestors [113].

Current Extremist Ideologies in the United States

Far-Left Extremism

This group is traditionally class-oriented, with individuals and groups that adhere to anti-imperialist, anarchist, or Marxist beliefs and seek to overthrow the capitalist system, including the U.S. government, for replacement with decentralized, non-hierarchical systems. During the 1960s and 1970s, far-left extremist groups were motivated by anti-war, anti-capitalism, and social justice issues. Far-left extremists were responsible for 68% of terrorist attacks and 58% of fatalities in the United States during the 1970s [120; 121].

Terrorist attacks by violent left-wing groups dissipated in the 1980s. However, environmental activism and terrorism emerged in the 1990s and remains the current ideology associated with the far-left. In the 1990s and 2000s, groups like the Animal Liberation Front (ALF) and Earth Liberation Front (ELF) have been responsible for many terrorist attacks against property, but all have been non-lethal and non-injurious. Incidents by these groups dropped off during the 2010s [121].

Single-Issue Extremism

Individuals motivated primarily by a single issue rather than a broad ideology have beliefs that may fall anywhere on the political spectrum [121]. Examples include members of the Puerto Rican independence movement and the Jewish Defense League in the 1960s and 1970s, and extremists with idiosyncratic ideologies, like Unabomber Ted Kaczynski.

Several armed attacks against law enforcement officers were perpetrated in 2014–2016 by assailants whose stated motivation was deadly use-of-force incidents involving the police and Black persons during this period. The deadliest year was 2016, with attacks in Dallas that killed five and wounded nine law enforcement officers; in Baton Rouge that killed three law enforcement officers and injured three; and in Philadelphia that killed one civilian and injured five law enforcement officers. A 2014 attack in New York City killed two officers. In several other incidents, assailants opened fire on police without officer or civilian fatalities. These extremists, perhaps most accurately described as Black supremacists, do not neatly fall into other broad groupings [121].

Anti-abortion extremists not motivated by traditional far-right issues (e.g., anti-government, race superiority) are single-issue extremists. Between 1973 (when abortion was nationally legalized) and 2007, more than 200 abortion clinics were bombed or set on fire and more than 4,000 acts of violence were perpetrated (including homicide) or threatened against abortion providers or clinic workers [89; 120].

Islamist Extremism

Islamists are violent Salafi Sunni Muslim extremists. Salafism is a highly conservative fundamentalist movement within Sunni Islam that originated in the Arabian Peninsula and is adhered to by a minority of Sunni Muslims [122].

Violent Salafis engage in extremist violence to advance their beliefs against perceived enemies. Influential figures include al-Qaeda leaders Osama bin Laden and Anwar al-Awlaki, an American-born radical Islamic cleric who led al-Qaeda of the Arabian Peninsula. al-Awlaki was killed by a 2011 U.S. military drone strike in Yemen, but his videos persist. ISIS is considered a violent Salafi movement [122].

Salafism is not monolithic but highly fractured by differences among Salafi groups. Nonviolent Salafis are often outspoken in their criticisms about the actions of violent Salafis [122]. Violent radical Salafi ideology is only one of six branches of Salafi Islam, an important distinction to avoid confusing the violent radical ideology with a larger mass of ideologies that have different nonviolent visions for the role of Islam in society [105].

The first Islamist extremist attack in the United States was the 1993 truck bomb in a garage under the World Trade Center in New York, killing 6 people and injuring more than 1,000. On September 11, 2001, four passenger jets were hijacked by members of al-Qaeda and flown into both World Trade Center towers and the Pentagon, with the fourth plane crashed into an empty field after the passengers gained control. With nearly 3,000 people killed and thousands more injured, the lethality and long-term impact of 9/11 were extraordinary [121].

Following 9/11, attacks perpetrated by foreign Islamist extremists became rare. They were replaced by individuals born or raised from childhood in the United States, whose self-identified radicalization to Islamist extremist violence occurred through Internet exposure to material from al-Qaeda or ISIS [120]. Attacks during the 2010s by al-Qaeda- or ISIS-inspired perpetrators decreased but did not disappear. In 2013, Dzhokhar and Tamerlan Tsarnaev detonated bombs near the finish line of the Boston Marathon, killing three and injuring several hundred others in an attack motivated by extremist Islamic views (although not connected to any group specifically). Ahmad Khan Rahami was arrested for three ISIS-inspired explosive device attacks in New Jersey and New York City injuring 31 [123].

The Zebra Killers were a Nation of Islam offshoot of Black Muslims who, in San Francisco during 1973–1974, committed 20 attacks of randomly targeted Whites, killing 15 victims and injuring 8. The primary motive may have been racial rather than religious extremism [123].

Traditional Far-Right Extremism

Modern far-right extremism ideology is generally exclusivist, favors social hierarchy, and seeks an idealized future favoring a specific group or group identity (often based on racial traits). The extremist far right is commonly hostile to the political left and the federal government and includes radical individuals linked to extremist religious groups (e.g., Identity Christians), non-religious racial supremacists (e.g., Creativity Movement, National Alliance), tax protesters, sovereign citizens, militias, and militant gun rights advocates. Some advocate violence based on beliefs that a personal and/or national way of life is under attack and already lost or the threat is imminent [120; 121].

The increasing anti-Muslim sentiment of the far-right correlates with rising populism and nationalism throughout the West. The far-right has expanded from ethno-racial to cultural-ideologic forms of extremism, opposing not just ethnic and religious differences in society but the supporting ideologies and philosophies of multiculturalism and diversity. The idea of differences itself is opposed [103; 124].

The Alternative Right ("Alt-Right")

An emerging far-right extremist infrastructure, the term "alt-right" was coined by White nationalist leader Richard Spencer to describe a younger, better-educated movement than traditional White supremacists like the KKK, with right-wing views at odds with the conservative establishment. "Alt-right" re-brands long-standing racist, misogynist, and White nationalist beliefs for appeal to younger people [125; 126]. The Texas Department of Public Safety identified White racially motivated as the most violently active type of domestic terrorism in 2020 [254].

The sprawling alt-right universe envelops neo-Nazis, White supremacists, male supremacists, misogynists, conspiracy theorists, techno-libertarians, White nationalists, anarcho-capitalists, and Dark Enlightenment adherents through a loosely affiliated aggregation of blogs, fora, podcasts, Twitter/Gab, and YouTube personalities united by a hatred

of feminism, multiculturalism, and liberalism, and the belief that "political correctness" threatens individual liberty [97; 125; 127].

The alt-right movement is largely traced to 2012–2014, with the killing of Black teenager Trayvon Martin and the "Gamergate" harassment campaign that targeted female game developers and journalists for entering the male-dominated space. Using 4chan and other platforms to organize, the targets were "doxxed" (i.e., had their personal information published online) and systematically threatened with rape and death by anonymous abusers. Gamergate was formative in the development of the alt-right; young men from right-wing online spaces came together in a shared campaign against liberal "politically correct" culture [126; 127]. Male supremacy was fundamental to the formation of the racist alt-right [97]. Alt-right, White supremacist, and male supremacist circles tightly overlap to reinforce shared narratives of dispossessed, oppressed White men, blamed on minorities, women, and immigrants [97]. Gamergate crystalized the "manosphere" of misogynist websites that encourage harassment of women and launched the incel movement.

Antisemitism is another common belief of far-right and alt-right extremists. In these groups, Jewish persons are commonly blamed for promoting progressive (and perceived anti-White and/or anti-Nationalist) policies such as civil rights, immigration, and diversity. Antisemitic conspiracy theories (e.g., Holocaust denial, banking/Hollywood control) are used to justify violent behaviors. Several shootings committed by far-right or alt-right perpetrators have occurred outside or in synagogues or Jewish community centers over the past 20 years, including in Kansas in 2014 (resulting in three deaths), at the U.S. Holocaust Memorial Museum in 2009 (resulting in one death), and Los Angeles in 1999 (resulting in five injuries). The mass shooting at the Tree of Life (Or L'Simcha Congregation) Synagogue in 2018 resulted in 11 deaths and 6 injuries. The shooter in this case, Robert Gregory Bowers, had a history of participation in alt-right extremist social media. Before entering the Synagogue on October 27, 2018, Bowers posted the following on the website Gab (a Twitter-like social media site frequented by alt-right extremists): "HIAS [Hebrew Immigrant Aid Society] likes to bring invaders in that kill our people. I can't sit by and watch my people get slaughtered. Screw your optics, I'm going in." He had also made statements online indicating his desire to "kill Jews" [128].

ISLAMIST AND FAR-RIGHTIST VIOLENCE IN THE UNITED STATES

Attacks and Fatalities

Following 9/11, non-Islamist extremism has often been ignored, but threats posed by far-right extremism are significant. ***Table 2*** shows Islamist and far-rightist violence; 9/11 and the Oklahoma City bombing are excluded as outliers [108; 129; 130].

After 2008, Islamist extremists were responsible for a small number of high-casualty mass shootings, including 49 killed in the 2016 Pulse nightclub attack and 14 killed in the 2015 San Bernardino attack. During that same period, far-right extremists committed more numerous, lower-casualty attacks [115]. From the time period after 9/11 until 2017, deaths from far-right attacks exceeded Islamist attacks in 10 of the 15 years and were the same in 3 of the years [108; 129; 130]. Between 2018 and 2020, there were 54 far-right attacks resulting in 116 murders, the largest of which was the August 2019 shooting by a White supremacist at an El Paso Walmart, where 23 people were killed [255]. During the same period, there were no killings in the United States definitively linked to Islamic extremism.

Black supremacists committed 15% of extremist homicides in 2017, including the shooting spree of Kori Ali Muhammad, who killed four White victims in Fresno. This followed eight police officers killed in Dallas and Baton Rouge by Black supremacists in 2016, the most homicides perpetrated by this extremist subgroup since the early 1980s. More time is needed to determine if Black supremacists represent a durable problem [115].

EXTREMIST IDEOLOGY AND VIOLENCE IN THE UNITED STATES				
Target and Timeframe	**Far-Rightist**		**Islamist**	
	Attacks	**Deaths**	**Attacks**	**Deaths**
Civilian fatalities from attacks, 1990–2020[a]	N/A	388	N/A	N/A
Civilian fatalities from attacks, 9/12/2001–2020	N/A	274	N/A	141
Civilian fatalities from attacks, 2008–2018[b]	N/A	71%	N/A	26%
Attacks on law enforcement officers and fatalities, 1990–2015	46	57	5	7
Attacks on military personnel and fatalities, 1990–2015	0	0	3	18[c]
[a]Excludes September 11 and Oklahoma City attacks [b]3% of deaths by Black Supremacists [c]Includes 13 killed in the 2009 Fort Hood attack N/A = not available.				
Source: [108; 115; 129; 130; 255; 256]				*Table 2*

Law enforcement officers killed or injured in targeted attacks doubled after 9/11 (vs. pre-9/11). Far-rightist attacks on law enforcement officers escalated during 2009–2013, motivated by anti-government and White supremacist anger, some focused on the nation's first African American president [108; 129; 130].

All Islamist extremist attacks on military personnel occurred during 2009–2011 by offenders motivated by anger over the Iraq and Afghanistan wars. Far-right extremists are sympathetic to the military but often hold anti-government views and have a higher likelihood of escalating routine law enforcement contacts into fatal encounters. These extremists present a unique risk to local law enforcement officers, who are disproportionately targeted [108; 129; 130].

Emerging Trends in Far-Rightist Violence

Analysis of 108 far-right homicides from 1990 to 2008 concluded far-right terrorism was primarily a White male phenomenon fueled by a need to re-establish their perceived threatened dominant position in society [131]. In 2015, the FBI issued an intelligence bulletin that Muslims and Islamic religious institutions were new targets for harassment and violence by far-right militia groups, and that given the broader trends of Islamophobia and sharp increases in hate crimes targeting Muslims, anti-Muslim violence by militias had the potential to worsen [132].

The FBI forecast was prescient. Looking at events in early 2018, three men were charged with bombing a mosque in Minnesota (no deaths or injuries); a sting operation foiled a planned mass-shooting of a Florida mosque; a Muslim mayoral candidate in Minnesota received death threats from a militia group; and three defendants, disrupted before they detonated four car bombs to demolish a Kansas apartment that housed Somali Muslim immigrants, were all found guilty of conspiring to use a weapon of mass destruction and conspiracy against rights, a hate crime. The bombing was planned for November 9, 2016, the day of the presidential election [133; 134]. Sikhs have also been killed by perpetrators unaware that Sikhs are not Muslims, including a Sikh temple massacre that killed six worshipers in 2012 [135].

The Southern Poverty Law Center identifies the 2014 rampage of Elliot Rodger that killed 7 and injured 14 as the first alt-right-inspired mass murder. As an incel, Rodgers' grievance against women was amplified to murderous hatred by immersion in violent misogynist fora [126]. In 2018, another deadly incel attack killed 10 Toronto pedestrians and injured 16 more, most of whom were women. Before his vehicular rampage, Alek Minassian posted "All hail the Supreme Gentleman Elliot Rodger!" on social media [98].

Among cases cited by the Southern Poverty Law Center in 2017, the alt-right anti-Muslim radicalization of Alexandre Bissonnette preceded his mass shooting in a Quebec City mosque killing 6 worshipers and injuring 19 others, and Lane Davis, who murdered his liberal father after accusing him of pedophilia, solely from believing the alt-right conspiracy that liberals are secretly operating pedophilia rings (e.g., #Pizzagate) [126].

Similarities of Far-Right and Islamist Extremists

The radicalization pathways and outcomes of far-right and Islamist extremists are markedly similar, the issues leading to a path highly overlap, and both should be regarded as similarly problematic [103; 136]. The following case suggests how similar factors may influence radicalization to either extremism.

In 2016, nine young people were fatally shot in Munich by David Sonboly, an 18-year-old man born in Germany to Iranian refugee parents. At first, the attack appeared to be a violent incident by a radicalized Islamist. However, various personal, psychologic, and political motivations led Sonboly (born Ali Sonboly) to embrace a "pure racial identity" that transcended his cultural, immigrant, and minority background, and that of his family and friends. Sonboly idolized far-right terrorist Anders Breivik and timed his mass murder on the fifth anniversary of the Breivik attacks in Norway.

The specifics of this case are unusual, but the issues at the margins of society similarly affect young people challenged by their cultural and ethnic identities, leading a few to radicalization and violence. Sonboly did not feel comfortable in his own skin, radicalizing and murdering others over insecurities surrounding his ethnic and cultural identity [103].

With industrial capitalism ending and being replaced by neoliberal globalization, the pace of de-industrialization has accelerated. The political, religious, and cultural societal changes and broader globalization have left many communities with a sense of alienation. "Left behind" White working classes and Muslim minorities both face social, psychologic, economic, and structural issues that can thwart the formation of identities and realization of individual potential. Both are apprehensive over multiculturalism, dislocation, and identity conflict [103]. Anomie is a term to describe the alienation and instability that can follow rapid social change and an increasing inability to achieve what society appears to promise, which may lead to weakened group ties, non-adherence to social norms, fragmentation of identity, and loss of purpose [125; 138].

The emotional consequences of losing hope leave many of these young men vulnerable, exposed, and pliable to external influences that exploit feelings of marginalization and loss of significance [103]. For example, young White men who feel disenfranchised and alienated are vulnerable to radicalization from exposure to alt-right elements [120; 125].

A crisis of masculinity is an issue faced by youth in marginalized communities and a vulnerability factor to both Islamist and far-right radicalization. It is created by a lack of social mobility, persistent unemployment, anomie, and disenfranchisement. The consequences can encourage young people to prove themselves—to seek recognition and become somebody—using whatever means necessary [103].

MEDIA AND CULTURAL NARRATIVES OF EXTREMIST VIOLENCE

Mass violence is followed by questions of whether the act was terrorism. Public perception of terrorist acts and actors has far-reaching consequences that influence governmental and mental health policy and how citizens treat each other. In essence, media reporting shapes this perception [139].

A 2018 study examined the media attention of terrorist attacks in the United States from 2006 to 2015. All 136 attacks (81.6% non-fatal) were controlled for target, fatalities, and arrests. Attacks by Muslim perpetrators received an average 357% more media coverage than comparable attacks by non-Muslims. During this period, Muslims perpetrated 12.5% of attacks but received 50.4% of all news coverage [135].

Several terrorist attacks received substantially less media coverage than researchers expected. These include attacks on a Sikh Temple in Wisconsin that killed six people in 2012; on a Kansas synagogue that killed three people in 2014; and the 2015 attack that killed nine African Americans in a Charleston church. All three cases had White male perpetrators and religious or ethnic minority targets, highlighting the disparity in media coverage of domestic terrorism [135].

Some terrorist attacks are sensationalized and extensively covered, but most receive little to no media attention [140]. A terrorist attack receives less coverage when framed as a crime, while crime reports of incidents committed by Muslims are more likely to be labeled as terrorism [141]. Events are considered more newsworthy if they can be typified as reflecting current beliefs and social structures and can be scripted in ways that reinforce stereotypes. Media framing of terrorism as a specifically Muslim problem is the dominant narrative [142].

Media coverage increases when terrorist perpetrators are members of an out-group, or "others." Social identity research highlights in-group and out-group dynamics, whereby people perceived as "others" are portrayed and perceived more negatively. The biased portrayal of Muslims and Arabs as "others" in entertainment and news media may explain why people implicitly connect terrorism and Islam, Muslims as threats to national security, and an incident as "terrorism" when the perpetrator is Muslim [135; 143; 144; 145]. The substantially greater media attention to extremist attacks by Muslims reinforces the cultural narrative of who should be feared. Framing this type of event as more prevalent helps explain why 36% of Americans are very or somewhat fearful that they or someone they know will be a victim of terrorism and implicitly link terrorism and Islam [145; 146].

Political decisions can reinforce Muslim-terrorist stereotypes. In 2009, the U.S. Department of Homeland Security released an intelligence brief stating the economic downturn and election of the first African American president were fueling a resurgence in far-right extremism. A severe backlash (incorrectly) claiming the report painted conservatives as potential domestic terrorists led to withdrawal of the report and defunding of the DHS unit that produced it [147; 148]. Following the White supremacist mass murder of nine Black churchgoers in 2015, the FBI Director stated the offense was not an act of terror [139]. These misperceptions and lack of will to consider extremist violence by non-Muslims fuel prejudice and discrimination, prevent other pressing security threats from being addressed, and invite consequences [135; 149].

EXTREMIST MASS VIOLENCE: PATHWAYS

Distinguishing nonviolent from violent extremists and understanding what generates the difference is a foremost concern that is only recently appreciated [150; 257]. As with mass shooters, terrorist acts have been ascribed to mental illness, which became a focus of terrorist prevention. However, looking to psychologic characteristics and psychopathology to explain extremist violence has been generally unhelpful [151].

Extremist violence, as with all forms of targeted violence, cannot be disrupted using prediction. Realizing terrorist acts are too difficult to predict, the focus turned to radicalization as a proxy for pre-empting terrorism, because radicalized individuals are substantially greater in number and easier to detect than individuals who commit extremist violence [101].

This logic is compelling but flawed, and around 2010, the value of disrupting radicalization became questioned. Viewing ideas as threats can lead to a war on ideas, and government over-reaction to terrorist threat often creates a backlash, with new threats [101]. Decades of social psychology research demonstrates extreme beliefs are largely or mostly unrelated to extreme actions [101; 120].

The Profiles of Individual Radicalization in the United States (PIRUS) database was developed to address these shortcomings [257]. PIRUS contains information on over 2,200 violent and nonviolent extremists across the ideologic spectrum from 1948 to 2018 and is the first U.S. extremist database with size and case detail sufficient for longitudinal (pathway) and quantitative analyses.

MORAL EMOTIONS AND INTERGROUP VIOLENCE

As discussed, social identity theory distinguishes the group one identifies with and belong in (in-group) from groups one does not identify with nor belong in (out-group). Group members can share emotions about their in-group and out-groups. Group emotions motivate group behaviors and provide the bases for in-group and out-group attributions. Negative attributions of an out-group by leaders of ideologic groups can motivate hostile or violent in-group behaviors against out-group members. Hate crimes, massacre, and genocide against out-groups have been incited by leaders who, from positions of moral superiority, evoke moral outrage, devaluation, and a need to protect in-group "purity" from out-group contamination [90; 152; 153].

The ANCODI Emotions

Anger, contempt, and disgust (ANCODI) are moral emotions associated with violations of ethics, morality, and divinity. Disgust is also an evolved defense to ward off contaminants and purge the environment of toxins [90]. A highly relevant body of research demonstrates how ANCODI emotions can combine to drive ideologically motivated intergroup violence [153; 154; 155].

Research on aggression has focused on anger, but disgust transforms aggression into hostility and anger into hatred. Directed at a despised out-group, anger motivates action, contempt motivates devaluation, and disgust motivates dehumanization and elimination. Thus, the ANCODI emotions work in a sequence (or pathway) that starts with a perceived injustice and evolves to elimination [155].

ANCODI works through serial narrative by in-group leaders. An unjust incident that evokes outrage is attributed to the out-group (anger), re-framed from a position of moral superiority that links similar behaviors to the morally inferior out-group (contempt) that threatens in-group purity with contamination and must be removed (disgust). Cultural narratives can facilitate hatred across generations by propagating ANCODI emotions [152; 155].

The validity of ANCODI emotions as instrumental in inciting ideologically motivated violence has been demonstrated by speech and video analysis of leaders of ideologically motivated groups, and by clinical research involving members of ideologically motivated groups. Hitler, Osama Bin Laden, Slobodan Milošević, and Virginia Tech mass shooter Seung-Hui Cho (among others) showed escalation of disgust preceding mass violence. Studies evaluating ANCODI showed cross-cultural, cross-language, and cross-generational validity [153; 155].

People normatively react to spoiled food, filthy environments, and insects not with anger or contempt, but with disgust and a desire to cleanse, sometimes through violence, so they do not continue to poison [153; 156]. In a mass psychology context, the Nazis

equated the Jews with vermin and other contaminants, and thus found an emotional accelerant for the Holocaust. Propaganda in the Rwandan genocide states it was "cockroaches," and not humans, that were killed. These ideologies argue that purification takes a step forward if toxins and contaminants are obliterated [90; 157].

For ideologic extremists, the path to violence advances when anger, fear, or contempt of the perceived enemy is replaced by equating the enemy with a toxin (disgust). The impulse is to be rid of it, to exterminate, to kill [90]. Far-right groups vehemently defend a sense of identity, the purity of which is seen threatened with destruction or dilution by emerging racial, ethnic, and religious minority groups [103]. Calls by ISIS to violently cleanse society of impure elements incited the annihilation of Shia and moderate Sunni Muslims to rid their "pure" Islamic caliphate of these "contaminants" [105].

Anger, contempt, and disgust compressed together become dangerous in the processes of dehumanization and extremist violence across all languages and cultures. Monitoring communications for expression of ANCODI emotions directed at out-groups may provide an early-warning mechanism of impending violence [153; 155]. The same is true of the language used by individuals encountered in a health or mental health setting.

Dehumanization

Dehumanization is directly related to ANCODI emotions of contempt and disgust, but its valid measurement remained elusive until introduction of a novel scale using the Ascent of (Hu)Man (AoM) diagram. With AoM, a diagram is presented, with five images depicting the evolution of humans, from primitive quadrupedal ancestor to modern human. The subject places each person/group on a continuum from 0 (primitive pre-human) to 100 (fully human). Lower scores indicate dehumanization, and higher scores represent humanization [158]. For comparison, the average American in 2014 rated ISIS at 54 [158]. The AoM scale and other measures were given to alt-right adherents and a control group to understand the psychologic profile of this emergent group (***Table 3***) [159].

Supremacists perceived Black people as half-way between the primitive ape-like human ancestor and "full" human, and similarly dehumanized democrats and the mainstream media, with feminists and Muslims closer to primitive pre-humans than fully human. The combined ratings by supremacists and populists increased somewhat, but these entities were still perceived as less than fully human.

The alt-right group perceived that certain historically advantaged groups are superior to other groups and need their interests protected, with their social positions under threat. They also expressed a level of hostility toward religious/national out-groups and political opposition groups considered extremist [159].

The supremacist subgroup reported very high motivations to express prejudice, extreme dehumanization of out-groups and opposition groups, very high levels of callous and manipulative behavior, and more frequent aggressive behavior. The populist subgroup showed lower extremist tendencies [159].

Radicalization

As discussed, radicalization is a gradual process that intends to change the beliefs, feelings, and behaviors of individuals with the objective of aligning them against the core values of societies they inhabit and preparing them for intergroup conflict against an out-group that must be fought [117]. Social factors influence this process and the progression from extremist beliefs (non-violence) to extremist violence [151]. The radicalization process may be linear or nonlinear, but it starts with social or political grievances and perceived injustices, a subsequent identity crisis, and the search for significance, identity, or purpose that follows [105].

DEHUMANIZATION RATINGS OF VARIOUS TARGET GROUPS BY SUPREMACISTS AND OTHER ALT-RIGHT ADHERENTS			
Target Groups	**Supremacists**	**All Alt-Right**	**Control Group**
Black people	51.4	64.7	89.1
Democrats	52.1	60.4	88.9
Mainstream media	51.5	58.6	84.2
Feminists	46.9	57.0	86.9
Muslims	44.8	55.4	83.2
Hillary Clinton	N/A	54.8	85.1
Source: [159]			*Table 3*

Radicalization should be understood in the context of "push" and "pull" factors. Push factors refer to negative social, political, economic, or cultural root causes that influence individuals to affiliate with extremist organizations. Pull factors are the perceived positive characteristics and benefits of extremist organizations that lure vulnerable individuals, such as feelings of significance and belonging [105].

Mental illness history, although very uncommon in the PIRUS data, may likewise "pull" individuals by increasing their susceptibility to ideologic narratives or extremist group coercion, or "push" individuals labeled, stigmatized, and excluded from conventional society and forced to seek acceptance through antisocial means [150].

Following alienation from the status quo of perceived unjust society, contextual factors set the stage for radicalization. These include political, economic, ideologic, and psychosocial drivers [105].

Significance Quest Theory of Radicalization to Extremist Violence

The Significance Quest Theory, also termed the 3-N (Need, Narrative, and Network) Model, explains radicalization and movement on a path to extremist violence using principles from social psychology and criminology that combine into three core, interrelated components [149; 151; 160].

The Need

The actor, or the ethnic, religious, or national group they identify with, experiences perceived oppression from a regime or social group; systemic discrimination, stigma, and/or abuse; or personal circumstances of trauma, failure, a significant loss, or reversal. Perceiving themselves as rejected, divested of control, or victimized by injustice, the actor feels belittled, disrespected, and humiliated. The specifics of the experience are less important than the psychologic effects [149; 151; 161].

A feeling of significance is the fundamental human need to feel worthy and to feel important, valued, and respected in the eyes of others. Humiliating and shameful experiences create a discrepancy between the positive way one wishes to view oneself, and the negative self-perception suggested by the circumstances. This discrepancy induces an aversive arousal and motivates action. The actor searches for routes that can remedy this state of insignificance and restore feelings of value and worth [151].

The Narrative

Some individuals with feelings of alienation and perceived injustice will search for the means to improve their condition. Unable to resolve or improve their grievance, feelings of anger and frustration accumulate. Extremist groups exploit these vulnerabilities by convincing the individual his or her frustration is attributable to a specific enemy [105; 162].

Regardless of where it falls on the political spectrum, the task of extremist ideology is to advance radicalization by identifying an entity to blame for the humiliation, justifying aggression against the entity on moral grounds, and indoctrinating the individual into simplistic thinking that sees the world in black and white. This narrative greatly appeals to those striving for significance [151].

Political, economic, or social grievances can lead to a "cognitive opening," when individuals in crisis become prone to altering their previously held beliefs and perceptions. Instead of relying on individuals' identity crises to spread their ideology, extremist recruiters actively trigger cognitive openings through different communication strategies intended to create a "moral shock" [105].

Through frame alignment, the individual examines whether the narrative of an extremist group aligns with his or her experiences and views. If frame alignment is not achieved, the process may be abandoned. If the frame makes sense, a process of socialization begins, and the individual adopts the ideology and becomes committed to it [105].

The Network

Through exposure to the extremist network, the realities of the individual undergo reconstruction. Alternative frames through which to interpret one's grievances are introduced. These frames are variations of existing cultural or religious frames that rework the schemata of interpretation to affect the meaning attached to events [117]. The individual increasingly identifies with the extreme ideology and network, leading to support of, or engagement in, extremist violence [105].

The network makes a violence-justifying narrative cognitively accessible; their support of the narrative validates it and proves its soundness. The network may convince the individual that, under present circumstances, violence is an acceptable and legitimate means. Violence becomes perceived as less extreme and more normative, making it easier to deviate from broad societal norms without the burden of guilt [149; 161].

Radicalization starts with an individual recognizing an unfavorable condition as "not right." This condition is then framed as "not fair" and attributed to a target entity. The enemy is demonized, and violence is validated. Dehumanization is a key psychosocial factor in extremist violence that contributes to "moral disengagement," the process which develops a moral justification to use violence [105; 163]. Reinforcement of an "us versus them" mentality brings the individual fully into the extremists' fold [117].

PIRUS Research and Radicalization Pathways

The PIRUS database was analyzed to identify nonviolent and violent radicalization pathways. (Note: The most recent data entry in PIRUS dates to 2013, which prevents analysis of alt-right extremism and makes some data on Internet activities and group affiliation dated. Nonetheless, studies using PIRUS data advance the understanding of extremist violence and its prevention.) Researchers found that factors that are necessary for nonviolent extremism are not sufficient for moving to violent extremism [120; 150]. A sense of community victimization and cognitive frame realignment are both necessary for radicalization to violent extremism. These factors combine with psychologic and emotional vulnerabilities from lost significance or thwarted efforts to gain significance, personal trauma, and collective crises to produce sufficient pathways to violent extremism. Radicalization to violence is unlikely in the absence of a cognitive frame realignment or the absence of feeling one is a member of a collectively victimized community. When present, neither factor ensures movement to violence, but they set the environment where it is possible.

Pathways that combine loss of significance and other individual-level vulnerabilities with perceptions of community victimization are particularly important for explaining shifts from nonviolent to violent extremism. Personal vulnerabilities can fuel identity-seeking behaviors in individuals who then find direction and meaning in extremist narratives. Individual-level factors interact with social identity dynamics, and individuals are persuaded that their personal deficits largely result from their membership of a collectively victimized or threatened community.

As individuals and groups become more insular, common mechanisms of cognitive bias (e.g., groupthink, rule compliance, dehumanizing rhetoric, diffusion of responsibility) increase, convincing individuals that alleviation of community grievances and threats to community survival can only occur through violent action.

Analysis of historical data from PIRUS identified four correlates of extremist violence [164]:

- Absence of stable employment
- Radical peers
- Mental illness history
- Pre-radicalization criminal record

The correlations were significant and additive. Individuals with none of the characteristics had a 41.3% chance of engaging in extremist violence; those with one factor had a 59.8% chance of violent behavior; with two factors, a 67.0% chance; and with three factors, an 84.8% chance. Documented mental illness was uncommon, and its influence on extremist violence was difficult to identify [164]. Of note, 41.3% of violent extremists lacked all four risk factors, highlighting the limited predictive capacity of static distal factors.

RADICALIZATION PATHWAYS: THE U.S. DEPARTMENT OF JUSTICE REPORT

In 2015, the U.S. Department of Justice published their findings of radicalization pathways among post-9/11 extremists unaffiliated with terrorist groups. The pathway was common across Islamist and far-right ideologies [129]. The pathway begins with personal and political grievances combined. This mirrors personal grievance and moral outrage outlined among the distal characteristics of targeted violence discussed previously in this course. These grievances formed the basis for an affinity with online sympathizers and ideologic validation of their beliefs (the second stage).

In the third stage, an "enabler" is identified—someone providing inspiration for terrorism (nearly all are indirect). The most frequent enablers identified were:

Islamists

- Osama bin Laden
- Anwar al-Awlaki

White Supremacists and Anti-Government Extremists

- William Pierce (National Alliance founder and author of *The Turner Diaries*)
- Internet personality Alex Jones

Nearly all extremists then engaged in broadcasting of terrorist intent. Finally, a triggering event occurs and acts as the catalyst for extremist violence that was personal, political, or some combination. The prompt to violence may be immediate or may accumulate slowly through a series of "escalation thresholds."

Example 1

The triggering event superseded all other facets of radicalization by fusing the personal proclivity for anger and violence with political grievance over the abuse of Muslims by U.S. military forces. This defining event allowed the subject to dehumanize his victims while elevating himself to a position of moral sanctity as a self-identified holy warrior.

Example 2

A series of escalation thresholds were influenced by a combination of personal grievances over a lack of employment prospects and paranoid political beliefs that intensified through affinity with online sympathizers. Along this pathway, discharge from military service was the triggering event for his self-identification as an armed warrior that precipitated an assassination.

SIMILARITIES OF VIOLENT EXTREMISTS AND OTHER MASS SHOOTERS

A comparison of 115 mass murderers (at least four victims) with 71 lone actor terrorists from 1990 to 2013 concluded both groups were very similar in behaviors, and similar threat assessment frameworks may be applied to both offender types. Instead of prediction based on static factors, prevention identifies patterns of behavior in both offender types that increases or decreases across time in a lead-up to perpetration; these trends statistically differ from random behavior [89].

Severe grievance is a common starting point among mass shooters and violent extremists. Both offender groups share pathologic narcissism, whereby sensitivity to shame and humiliation is activated by actual or perceived loss and public exposure of self as deficient. This, in turn, fuels the development of grievance against the humiliating entity. The path to violence diverges, but finally converges against a persecutory entity and past humiliation is undone through contempt, devaluation, and violence [90].

EVIDENCE-BASED PRACTICE RECOMMENDATION

The National Collaborating Centre for Mental Health cautions against making negative assumptions based on culture, religion, or ethnicity when assessing risk of violence. Unfamiliar cultural practices and customs can be misinterpreted as being aggressive, and clinicians should ensure that the risk assessment is objective and takes into account the degree to which the perceived risk can be verified.

(https://www.nice.org.uk/guidance/ng10. Last accessed March 17, 2022.)

Level of Evidence: Expert Opinion/Consensus Statement

IMPLICATIONS FOR SUCCESSFUL COUNTERING OF VIOLENT EXTREMISM

In the final report of the PIRUS data analysis, the authors state that erroneous assumptions drive policies to protect against Islamist extremism. These policies are counterproductive and are likely to inflame instead of mitigate the conditions that promote extremism [112; 120].

Complex psychologic and emotional processes, driven by feelings of lost significance and community victimization, play a central role in radicalization. Countering violent extremism programs should take this into account and should not place undue pressure or surveillance on specific communities, because this may amplify feelings of community victimization and alienation.

Efforts to counter extremist narratives and recruitment efforts should address perceptions of community victimization by challenging myths or misperceptions. Legitimate grievances should be acknowledged, with a focus on alternatives to address these grievances. Those countering violent extremism should be aware that cognitive biases make members less responsive to the disconfirming evidence central to counter-narratives.

Successful programs to counter violent extremism address underlying psychologic and emotional vulnerabilities that make individuals open to extremist narratives. These may result from traumatic experiences and losses, or personal and community marginalization. Programs that emphasize the acquisition of job-relevant skills may be effective for promoting sustained employment of at-risk individuals.

FBI statistics show that, in 2001, anti-Muslim hate crime incidents increased 1,600% from 2000. In 2002, hate crimes against Muslims decreased 67%, a drop credited, in part, to the leadership of President George W. Bush [148]. Leaders and advocates should keep this in mind when providing care or doing outreach.

GUN VIOLENCE TRENDS, DATA, AND FACTORS

The identification and interruption of individuals on a pathway to targeted mass violence is often performed by professionals with specialized training in threat assessment and management. However, mass shootings are part of the broader public health concern of gun violence. There is overwhelming recognition that health and mental health professionals can take critically important actions to reduce gun violence and increase the safety of their patients.

Clinician effectiveness in helping prevent gun violence requires understanding the following [32; 165; 166]:

- The nature and extent of mass shootings and the gun violence problem in general, including what it is, whom it affects, where it occurs, how patterns have changed over time, and the factors contributing to these changes
- The facts on gun safety and risks, gun owner subculture, and how to have gun conversations with patients

It is vitally important for clinicians to understand the dynamics of domestic violence and victim danger with perpetrator access to a gun. The strong association between domestic violence and mass shootings is largely unappreciated.

AGGRESSION, WEAPONS, AND VIOLENCE

The understanding of gun violence and risk reduction is well-informed by briefly reviewing aggression, aggressive behavior, and potential interaction with gun presence.

General Contributors to Aggression

The I-3 Model, a general framework to understand aggression, identifies three factors that influence the likelihood and intensity of aggressive behavioral response: instigation, impellance, and inhibition [167].

Instigation

Instigation is defined as the immediate environmental provocation that normatively affords an aggressive response. For example, in most contexts, witnessing another man try to seduce one's wife normatively renders aggression. Other normative instigations may include social rejection and verbal/physical provocation.

Impellance

Impellance encompasses the situational or dispositional qualities that influence how strongly the instigator fosters a proclivity to aggress. Factors that increase impellance strength include trait aggressiveness, Dark Tetrad personality traits (i.e., Machiavellianism, narcissism, psychopathy, and sadism), trait anger, hostile rumination, and presence of a weapon.

Inhibition

The situational or dispositional qualities that influence how strongly an individual is likely to enact an aggressive response are over-ridden with disinhibition. Inhibition is weakened by intoxication and strengthened by self-control, frontal lobe functioning, and emotional commitment to the relationship with the potential target of aggression.

Hostile Attributional Bias

Hostile attributional bias describes the tendency to perceive hostility in ambiguous situations. These individuals show a pattern of hypervigilance to threat and reactive aggression to perceived provocation. Hostile attributional bias is connected to personality traits involving hostile beliefs and reactive aggression, including narcissism and psychopathy [168; 169].

Some subcultures promote hostile attributional bias [169]. A unique "culture of honor" in some areas of the United States (particularly in the South) promotes vigilance toward provocateurs, perceptual readiness to attribute hostile intent to others, and retaliatory aggression in response to being dishonored. Violence among urban minority men is promoted by the premium placed on retaliation when disrespected ("dissed"). Recent "stand your ground" laws in some states permit lethal retaliation against a perceived provocateur [170].

The "Weapons Effect"

In the I-3 model of aggression, the presence of a weapon increases the proclivity for aggressive response to provocation [167]. This "weapons effect" was first described more than 50 years ago following observations that the mere presence of a weapon increased aggression, especially in angered individuals. In response to a specific situation, whether a person behaves aggressively is greatly influenced by how they interpret, or appraise, the situation [171].

Research demonstrates that the presence of weapons increases aggressive thoughts and hostile appraisals, which in turn increases the aggressive behavior. These effects are significantly stronger for men than women [171].

Weapons can make people more aggressive even when they are concealed instead of visible. In a nationally representative sample of adults, motorists with a concealed weapon in their car were more likely to drive aggressively (e.g., tailgate, make obscene gestures) than motorists without weapons in their car, even after controlling for other factors related to aggressive driving (e.g., gender, age, urbanization, census region, driving frequency) [171; 172].

DOMESTIC HOMICIDE AND MASS SHOOTINGS

As discussed, mass shootings/murders are generally defined as four or more people killed over a brief duration in close proximity. Many are domestic homicides, excluded from public mass shooting databases because they were not perpetrated in public and/or the perpetrator was known to the victims [173]. Unlike targeted violence, domestic violence homicides are typically impulsive acts perpetrated in highly charged emotional states. The terms "domestic violence" and "intimate partner violence" (IPV) are often used interchangeably.

During the 1920s and 1930s, mass murders (mostly familicides and crime-related gun massacres) were nearly as common as in the post-1960s era. Familicide describes mass murder, typically a man killing his partner (spouse or ex-spouse, girlfriend or ex-girlfriend), their children, relatives, or some combination. Then, as now, these acts were less likely to receive widespread news coverage. The long-standing view of domestic violence as a private family matter has undermined taking domestic violence as seriously as other potentially fatal violence [12; 20]. Public and clinician attention to the lethality of domestic violence is vital.

Domestic Violence as a Driving Factor in Mass Shootings

Some are quick to link Islam or mental illness to the actions of mass shooters, but the strong association with domestic violence/IPV goes largely unaddressed [174]. Domestic violence mass murders comprise more than 50% of all mass murders. Everytown for Gun Safety (Everytown) is a non-profit organization involved in research, education, and policy related to gun violence prevention. Because domestic mass shootings are often excluded from public mass shooting databases, Everytown examined the prevalence of mass shootings (defined as at least four people killed with a firearm, shooter excluded) during 2009–2020 [175; 176]. They found that in 240 mass shooting incidents, 1,363 people were killed and 947 were injured. Fifty-three percent of mass shootings were domestic violence-related, during which 632 intimate partners or other family members were killed and 106 were wounded. Sixty-one percent of incidents took place entirely in private residences, and another 9% occurred in the home and in public. During this period, 260 children and teens were killed with a firearm in a domestic mass shooting incident [175; 176]. In total, 33% of shooters were not legally allowed to possess a firearm due to such restrictions as previous domestic violence charges and restraining/protective orders.

Women are 28 times more likely to be killed by guns in the United States than in other high-income countries, and on average, 70 women are shot and killed by an intimate partner every month [176; 177; 178; 179]. A woman is 500% more likely to be killed in a domestic violence event when a gun is present. Nearly 1 million women alive today have been shot, or shot at, by an intimate partner. Abusers use guns to threaten and control their victims, even if they never pull the trigger. Around 4.5 million American women alive today have been threatened with a gun by an intimate partner [176; 177; 178; 179].

Of female victims of homicide, 90% are killed by a person they know, and half of these offenders are current or former intimate partners [180]. In contrast, a 2017 analysis places the annual risk of being killed by a stranger with severe psychoses at 1 in 14 million [32]. In mass shooting incidents, 32% ended when the perpetrators killed themselves [175]. Most suicides that follow homicide occur in the context of IPV; the perpetrators are motivated by dependency on, and/or desire to be reunited with, the victim(s) [181].

Warning Signs

Before the incident, 56% of mass shooters showed "red flag" warning signs for dangerous gun behaviors indicating they posed a danger to themselves or others, including [175; 176]:

- A recent threat of violence
- An act (or attempted act) of violence toward self or others
- A conviction for certain firearms offenses (e.g., unlawful and reckless use, display or brandishing)
- Violation of a protective order
- Ongoing substance abuse

The "red flags" overlap with factors that place women at greatest risk of being killed in abusive relationships, including [80; 178]:

- Perpetrator access to a gun
- Previous threat with a weapon
- Escalation in severity or frequency of violence
- Recent estrangement, especially from a controlling partner
- Being stalked by a former sexual partner

Domestic Violence Histories of Mass Shooters

As noted, a history of domestic violence is common among perpetrators of mass violence. One example is Devin Kelley, who killed 26 people and injured 20 in the November 2017 church massacre in Sutherland Springs, Texas. Kelley was consumed by a grievance against his mother-in-law and attacked the church his in-laws attended, although the mother-in-law was not present [182]. In the Air Force during 2012, Kelley was court-martialed and served 12 months in a military jail for assaulting his first wife and infant stepson, fracturing the boy's skull. While awaiting sentencing, he was detained at a mental health clinic for bringing weapons on base and making death threats against his superiors [182; 183]. His domestic violence record never appeared in the background check required of licensed gun dealers because the Air Force did not file the paperwork. Kelley legally purchased the AR-15 used in the massacre. Dishonorable discharges, but not bad conduct discharges, which Kelley received, enter the background check to block gun sales [182].

Other examples include Omar Mateen, who killed 49 people in the Pulse nightclub in 2016 and frequently battered his former wife, and Tamerlan Tsarnaev, one of the Boston Marathon bombers, who had been previously been arrested for domestic assault and battery. Anti-abortion extremist Robert Dear, who killed three people in a Colorado Planned

Parenthood clinic in 2015, had an extensive history of violence against women, domestic abuse, and an arrest for rape. Seung-Hui Cho, who killed 32 people at the Virginia Polytechnic Institute in 2007, had a history of stalking and harassing female students [184].

IPV Dynamics

IPV describes attempts to harm or control current or former romantic partners against their will through physical violence, psychologic aggression, sexual violence, or stalking. Men and women tend to show equivalent rates of IPV perpetration, but women are disproportionately injured and killed by IPV. De-humanization of women (i.e., women viewed as sex objects and not people) has implications for violent behavior directed toward them. The extent to which men objectify women is related to their IPV behaviors toward those women [185].

Domestic violence is driven by a desire by the abuser to exert power and control over the victim. The perpetrator's sense of losing that control is when violence is more likely, including domestic mass murder. The psychology of mass shooters also points to violence as the means to gain power and control [186]. Beyond potential use to kill and wound, batterers use guns in a variety of ways to coerce and control their victims. They may threaten to kill the women, themselves, the children, or a pet. During an argument, other methods of gun intimidation include cleaning, holding or loading a gun, and going outdoors and shooting the gun [187; 188].

Domestic abusers and mass killers often possess patriarchal, highly traditional views of male-female relationships and may use domestic violence to impose traditional gender roles on the female partner [174; 184]. This view also makes fundamentalist belief systems of major religions that advocate restrictive attitudes toward gender appealing and encourage men to punish women for their own failings. ISIS infamously noted this, with promises of young female sex slaves in its recruiting material. An IPV history may help neutralize the natural barriers to attempting mass murder [184].

MASS SHOOTINGS AND OTHER GUN VIOLENCE

Firearm injuries encompass fatal and non-fatal outcomes of interpersonal violence, self-directed violence, and accidental discharge. There were 45,222 firearm-related deaths in the United States in 2020, the highest rate on record [267]. Since 1968, more civilians have been murdered with guns than American soldiers have been killed in combat by any means in all wars combined [189; 190]. Firearm injuries are disproportionately a problem affecting men and boys, who account for 86% of deaths and 89% of non-fatal injuries; and a problem afflicting the South, where 46% of all gun-related homicides and 45% of suicides occur [165].

In 2020, firearms were the leading cause of death for children and adolescents (1 to 19 years of age) in the United States, surpassing motor vehicle accidents [267]. From 2019 to 2020, there was a relative increase of 29.5% in the rate of all types of firearm-related deaths (i.e., suicide, homicide, unintentional, and undetermined) among children and adolescents.

The definitions for mass shooting exclude assailants in counting the death toll, but otherwise vary. In 2005, the FBI defined mass murder as a purposeful homicidal act resulting in the deaths of four or more people. Following the 2012 Sandy Hook shooting, the defining minimum number of lives lost was lowered from four to three during the same event [191].

FBI Supplementary Homicide Reports, widely used for homicide data, rely on voluntary reporting by local law enforcement agencies nationwide. Problems with persistent under-reporting led to several independent homicide research databases [20; 28].

Most mass shooting databases exclude murders committed against family members, during robbery or burglary, or resulting from gang or drug activity [192]. This has excluded some of the worst incidents, including [193]:

- A 1983 robbery of a Seattle gambling club, in which 13 victims were executed by gunfire

- The largest family annihilation in U.S. history, when in 1987 an Arkansas man murdered his 14 family members, then drove to other locations to kill a former coworker, and then a woman who had spurned his romantic advances

According to the Mother Jones mass shooting database, during 2007–2013, active shooting and public mass murder incidents increased 150% compared with 2000–2006 [66; 194]. Mass shootings occurred, on average, every 200 days in 1982–2010, increasing to every 64 days in 2011–2014. The average victims per year increased more than 200% after the federal ban on assault weapons and large-capacity magazines expired (i.e., 65.7 victims per year in 2005–2016 vs. 21.1 victims per year in 1995–2004) [195]. Another analysis found that there was an average of 8 victims of mass shootings per year in the 1970s and an average of 51 victims per year between 2010 and 2019 [260].

The Gun Violence Archives (GVA) reported the following numbers of mass shooting incidents annually; however, this database includes domestic/family violence and gang/drug activity incidents [196]:

- 2016: 382
- 2017: 348
- 2018: 336
- 2019: 417
- 2020: 611
- 2021: 693

The FBI examined 20 years of active shooter incidents, defined as one or more individuals actively engaged in killing or attempting to kill people in a populated area. In total, 333 active shooter incidents were identified between 2000 and 2019 [197]. The average annual frequency increased from 2000–2006 (8.6) and 2007–2013 (17.4) to 2014–2019 (25.2). In 2000–2013 (a 14-year period), there were 182 incidents with 1,189 casualties (556 killed and 633 wounded). In contrast, in 2014–2019 (a 6-year period), there were 151 incidents with 1,662 casualties (506 killed and 1,156 wounded). During 2014–2015, the FBI noted two incidents in which a citizen with a gun permit exchanged gunfire with a shooter before the assailant was restrained and arrested, and a third incident in which a citizen pursued the shooter inside a store, but was shot and killed before he fired his weapon [198].

In sum, public mass shootings show an increasing frequency since roughly 2009–2010.

Homicides

As a subtype of homicide, discussion of trends in mass shooting also requires discussion of broader trends in gun homicide. Beginning in 1996, Congress prohibited gun injury research by the Centers for Disease Control and Prevention (CDC), and FBI data are used to analyze gun contribution to total homicides (***Table 4***) [199; 200].

The National Institute of Justice (NIJ) published an analysis of homicide increases in November 2017 [201]. Homicides increased nationwide from 2014 to 2015 (+11.4%) and 2015 to 2016 (+8.2%); and in big cities (≥ 250,000 population) from 2014 to 2015 (+15.2%) and 2015 to 2016 (+10.8%).

Despite 2016 homicide rates 35.4% lower nationwide and 45.7% lower in big cities than in 1995, the abrupt 2015–2016 increase is concerning. A closer look by NIJ found that most big cities with large homicide increases in 2015 or 2016 saw far smaller increases or large decreases in the opposite (2016 or 2015) year [201]. In all, 10 big cities accounted for 67.5% of homicide increases in 2015 and 95.5% in 2016 [201].

Most homicide increases are concentrated in a fraction of big cities and are time-limited. This suggests factors driving these increases may also be short-lived. The Department of Justice linked homicide increases in 2015–2016 to two proximal factors: evolving illicit drug markets and the "Ferguson effect." They did not identify the underlying (root) causal factors [201].

HOMICIDE DEATHS BY MEANS, 2015–2019					
Type of Homicide (Weapon Used)	**2015**	**2016**	**2017**	**2018**	**2019**
Firearms	9,143	10,398	11,014	10,445	10,258
Knives, cutting instruments	1,533	1,562	1,608	1,542	1,476
Blunt objects	438	466	474	455	397
Personal weapons (hands, fists, feet, etc.)	651	668	715	712	600
Weapon type not stated	1,727	1,852	965	928	840
All Homicides	**13,847**	**15,355**	**15,206**	**14,446**	**13,927**

Source: [200] *Table 4*

Illicit Drug Markets

The illicit opioid epidemic concentrates in White populations, but not in big cities. In 2015, fatal heroin overdose rates among Whites were 74% higher than Blacks and 135% higher than Hispanics. Racial differences in fatal fentanyl overdoses were even larger [201].

In 2015–2016, there were larger increases in drug-related homicides than all other homicide types involving White offenders and victims. The increasing demand for illicit opioids attracts more sellers into the market, which escalates conflicts between sellers over customers and territory; increases disputes between buyers and sellers over price, purity, quantity, or related factors; and draws other criminals who intend to rob sellers or buyers of drugs or money [201].

The "Ferguson Effect"

The "Ferguson effect" describes a cascade of effects that followed a series of high-profile, deadly use-of-force incidents involving the police and Black Americans in big cities during 2014–2016, beginning in Ferguson, Missouri [201].

A ripple effect of these incidents activated a police "legitimacy crisis" in urban Black communities already experiencing elevated levels of violent crime. With increased community alienation from the police, contact is avoided and violent crime is not reported by witnesses or victims, and violent retaliation increases. Following highly publicized violent police encounters, calls for police assistance significantly decline in nearby Black neighborhoods, taking about a year to return to pre-incident levels [201; 202]. Another effect is increasing concerns among police for their safety, resulting in reduced proactive policing, fewer arrests, and reduced stopping and questioning for suspicious behaviors and activities [201].

Cities most troubled by conflict between police and Black communities experienced the greatest one-year homicide increases (in either 2015 or 2016), including Cleveland, Chicago, Baltimore, St. Louis, and Milwaukee [201].

Homicides During the Coronavirus Pandemic

Data from March 2022 published by the FBI indicated relatively stable homicides rates in 2016–2017 (-0.2% nationwide, +1.6% in cities), 2017–2018 (-6.1% nationwide, -6.7% in cities), and 2018–2019 (+0.7% nationwide, +1.0% in cities) [261; 263].

Preliminary data from the FBI shows a nationwide 22.5% increase in homicides from 2019 (14,548) to 2020 (17,815) [264]. Homicides were higher in rural, suburban, and urban areas [265]. Despite this increase, the overall homicide rate in 2020 (11.4 per 100,000) remained significantly lower than the 1995 rate (19.4 per 100,000) [263].

It has been widely reported that domestic violence incidents increased substantially in 2020, partially attributed to pandemic restrictions; however, one analysis found that the 2020 rate was similar to the rate observed at the end of 2019 and that samples used in many studies were too small to be reliable [263]. To date, it is unclear if pandemic shutdowns significantly increased the incidence of domestic homicides.

Similar to the "Ferguson effect," the police killing of George Floyd in May 2020 (and the ensuing nationwide protests) was followed by an increase in homicides in June 2020, although homicides were also high in all previous months of 2020 [263]. At the time of George Floyd's murder, the March 2020 police shooting of Breonna Taylor was already responsible for elevated social unrest.

Several factors contributing to the historic homicide increase have been suggested, including economic hardship caused by the pandemic, alterations made to how police perform their duties, distrust in the police, increased social unrest, and significantly more people purchasing and carrying firearms [265; 266]. During 2020–2021, the FBI conducted the nine highest weeks of background checks in history. In one week of March 2021, the bureau processed 1,218,002 checks, the most ever for a seven-day period [266]. According to preliminary FBI data, firearms were used in 77% of homicides in 2020, also a record high [265]

Suicide and Suicide Attempts

Suicide is self-directed violence, and it is often overlooked in gun violence discussions. Guns are used in 5% of suicide attempts, but are responsible for more suicide deaths (>50%) than all other methods combined [203]. One analysis found that between 2000 and 2018, around two-thirds of the annual average 33,000 gun-related fatalities in the United States were suicides. In 2012, 75% of all gun suicides were White men, with the highest rates among those 70 years of age or older [165; 204; 205; 206].

During an acute suicidal crisis, lethality of the method available can be a critical determinant of fatal or nonfatal outcome. The fatality rate of suicide attempts using guns (85%) is much higher than most other methods (cutting/slashing: 0.7%; intentional overdose: 2.5%; jumping: 20%); hanging is the exception (70%). People usually do not substitute a different method when a highly lethal method is unavailable or difficult to access [165; 207].

Most suicidal impulses are overwhelming but short-lived, and suicidal individuals are often ambivalent about killing themselves [188]. The time between deciding on suicide and attempting suicide can be 10 minutes or less; more people begin a suicide attempt and stop mid-way than continue and complete it [205; 208; 209]. Cutting and overdose, unlike guns, offer a window for rescue [165]. More than 90% of those who attempt suicide and survive do not later die by suicide, but suicide attempts with a gun are usually fatal [205].

DISCUSSING GUN SAFETY AND RISKS WITH PATIENTS

The key role of primary care clinicians in preventing gun-related mortality and morbidity by initiating gun conversations with their patients is established. Clinicians should know what approaches to use and how to speak with patients, especially members of gun culture. Judgemental approaches and telling patients their fears of mass shootings/violent strangers and their urge to defend themselves are irrational are unlikely to be effective [210].

RATIONALE AND BARRIERS

Gun safety counseling is a key component in preventing firearm injury and deaths, including IPV and mass shootings, but healthcare professionals have a longstanding reluctance in addressing gun risks in their patients. Efforts by the American College of Physicians, the American Academy of Pediatrics, the National Association of Social Workers, the APA, and many other health and mental health organizations are helping to overcome this resistance [211; 212]. Asking patients about firearms, counseling them on safe firearm behaviors, and taking further steps with high-risk patients are some critically important actions to help prevent gun violence and accidents.

General Barriers

The healthcare team strives to prevent important health and mental health problems at the individual and population levels, but in general, does poorly at gun injury prevention. Members of the team infrequently ask about firearms and counsel poorly, if at all, despite awareness that the high lethality of guns makes prevention efforts particularly important [213].

In a 2014 survey of 573 internal medicine physicians, 58% reported never discussing with their patients whether there were guns in the home, 80% never discussed whether the patient used guns, 77% never discussed ways to reduce the risk for gun-related injury or death, and 62% reported never discussing the importance of keeping guns away from children [214].

In a 2021 survey of 1,901 emergency physicians, only 47% reported "almost always" or "often" discussing firearms when counseling patients at risk for suicide and their families [262]. Only 26% of respondents "strongly agreed" or "agreed" with the belief that physician-provided patient education on firearm injury prevention would change how patients store firearms.

In a survey study of 339 psychologists, 78.2% reported having no systems in place for identifying patients with access to firearms [215]. Only 51.6% of those surveyed indicated they would initiate firearm safety counseling if the patients were assessed as at risk for self-harm or harm to others, and 46% reported not receiving any information on firearm safety issues [215].

Many barriers exist. Perhaps the most important is an unfamiliarity with firearms themselves, with the benefits and risks of firearm ownership, and with what to say during firearm safety counseling and how to say it. Some may worry that asking questions that seem intrusive may invite discord or damage the patient relationship. They may feel uncomfortable asking about firearms, even when they are well-informed, or worry that patients will not be truthful. Some may believe that firearm counseling is outside their scope of practice or infringes on patients' Second Amendment rights [213].

Gun Culture and Clinician Barriers

Fully grasping and appreciating the perspectives, beliefs, and values of gun culture members is vital for providers who are not part of the culture (***Appendix: Understanding Gun Culture***). Now considered culture blindness, this may lead to failures in engaging the patient, understanding their interests, and communicating useful information to them or their family [32; 216; 217]. Effective work with gun owners is considered a cross-cultural issue that requires the integration of gun violence evidence with the culture and interests of gun owners [32; 218].

Patient-centered care, a guiding principle in many disciplines, requires cultural competence for patient populations diverse by ethnic heritage, religious beliefs, sexual orientation, and other factors. Cultural competence includes respect for cultural variation, awareness of diverse beliefs and practices, interest in learning about other cultures and skills that enhance cross-cultural communication, and acknowledgment that practicing cultural competence enhances the delivery of quality health care [218]. Healthcare providers should view gun ownership as linked to membership of a subculture, with cultural competence for gun safety counseling requiring the recognition of multiple gun owner subpopulations with differing perspectives and motivations [218].

Health and mental health providers should recognize and work to reduce their knowledge gaps or biases, while taking steps to optimize patient education and communication. This approach is used in counseling patients on other controversial behaviors with potential health consequences, like using helmets and seat belts, accepting childhood vaccinations, and reliance on naturopathic remedies. Clinicians may feel uncomfortable or uninformed when discussing certain subjects and may disagree with patient choices or beliefs, but discomfort or disagreement cannot justify condescension or silent inaction [218].

Gun Culture and Patient Barriers

The limited availability and recognized need for healthcare provider training on firearm-related issues has invited patient misunderstanding, as clinicians often enter gun discussions with limited comfort and competence [32]. Some gun-owning patients have interacted with providers who seemed unaware of the issues or intolerant of their perspective and may not view healthcare providers as trustworthy resources for information or concerns about gun safety [218].

Viewpoints of the broader gun owner community have shifted over time, and the current trend shows increased identification and perception as a persecuted group [219]. Some gun owners perceive medical and mental health clinicians as hostile to their interests, values, and rights [32]. This highlights the importance for clinicians to reach across a cultural divide by understanding the perspective of patients in gun culture.

Prohibitions on Asking About Firearms

Some states have enacted laws with the stated intent to protect patient privacy and prevent intrusive questioning of gun ownership. Florida passed a law in 2011, the Firearm Owners' Privacy Act (FOPA), imposing disciplinary sanctions for clinicians who ask about or document patient gun ownership. A clause permitted this when relevant to safety, but many providers believed questioning was illegal under any circumstances and refrained from doing so. Key provisions were overturned in 2017, when the 11th U.S. Circuit Court of Appeals ruled that the law violated providers' First Amendment rights and also noted that firearms discussions do not infringe on Second Amendment rights [32; 220; 221].

While there is presently no state or federal statute that should interfere with initiating gun conversations with patients, the impact of actual or perceived threat of professional sanctions on gun discussions with patients may be substantial [32; 218; 220]. Concerned clinicians can find the status of gun laws in their state by visiting https://giffords.org/lawcenter/gun-laws/browse-state-gun-laws.

GENERAL GUIDANCE

Patients are more open to firearm safety counseling that is tailored to their context, focused on well-being and safety, and involves the family in discussions. The following section provides suggestions on how to approach gun discussions [211; 213; 218; 220].

Individualize and provide health context for questions. Explain the context for asking about guns when routinely assessing gun safety, such as part of routine household hazard screening for parents of toddlers and risk behaviors for teens. With counseling, use different educational messages for parents of young children, family members of patients with cognitive impairment, and suicidality. Acknowledge local cultural norms.

Avoid accusatory questions. If a patient is struggling with suicidal thoughts, instead of asking "Do you have a gun?", consider "Some of my patients have guns at home, and some gun owners with suicidal thoughts choose to make their guns less accessible. Are you interested in talking about that?"

Start with open-ended questions. To avoid sounding judgmental, instead of starting with, "Is your gun safely secured?", ask "Do you have any concerns about the accessibility of your gun?"

Avoid being overly prescriptive. Meet patients where they are. When risk is present, instead of prescribing one specific solution, consider brainstorming. Removing the gun may be objectively optimal but when resisted by the patient, turn to making the gun less accessible by discussing various options (e.g., surrendering the gun, disposing of ammunition, storing the gun outside the home). This is consistent with the principles of shared decision-making.

Health and mental health professionals have an opportunity to educate patients about safe storage, household risk factors, and risk mitigation, which is particularly important when increased risk factors apply. Educate patients on firearm safety and include statistics on risks of injury or death, conveyed as less judgmental by written educational material with resources. To refine the patient education approach, professionals should collaborate with gun-owner community members. The suggestion, "Don't just ask, inform" emphasizes patient education and not just information gathering.

The three basics of gun safety assessment and counseling are [211; 213]:

- Ask
- Assess
- Counsel (regarding safe storage and decreased access)

Ask first, "Are any firearms kept in or around your home?" If "yes," ask two follow-up questions:

- "Do any of these firearms belong to you personally?"
- "Are any of these firearms stored loaded and not locked away?"

Assess gun access by high-risk household members (e.g., those with history of violence, children or teenagers, suicidal or depressed, IPV survivors or perpetrators, alcohol abuse, cognitive impairment). With guns in the home, ask about the "5 Ls" risk factors (Locked, Loaded, Little children, feeling Low, Learned owner) and ask if the operator has cognitive impairment.

Counsel patients that the safest storage at home is unloaded and securely locked, with ammunition locked in a separate container. To decrease gun access, consider storage at a remote location, ammunition disposal (or stored separately), or deactivation by removing a functional part. Providing an educational handout with information on gun storage devices may also be helpful.

If advisability of having guns at home enters discussion, clinicians can point to the abundant evidence establishing that guns at home, and purchasing a handgun, are associated with a substantial, long-lasting increased risk for violent death [213].

Counseling patients on gun safety and risks may involve advising a patient their safest action is to remove guns from the home. If this is resisted, safe storage practices are introduced as a compromise. The conflict between safest approach and compromise approach may create an ethical challenge [220].

Patients with Safety Concerns

For patients with acute risk of gun violence and/or whose information or behaviors suggests suicidal or homicidal ideation or intent, immediately determine access to lethal means and promptly reduce access, with patient cooperation if possible (i.e., lethal means counseling). Temporarily relinquishing guns may be needed; use a gun violence restraining order or red flag law, family members, gun shops, or law enforcement (as allowed by state laws). Disclose to others who can reduce risk (e.g., family, law enforcement, psychiatric services). Hospitalize when necessary; bed availability should be long enough to significantly reduce suicide/homicide risk. Those with prescriptive authority should avoid prescribing disinhibiting medication, such as benzodiazepines [205; 213; 222].

Remember that patient demographics increase the risks of gun-related injury. Middle-aged and older White men and those with children and adolescents in the household are at greater risk. These individuals may be counseled on safe storage and risk reduction [213]. For patients with two or more high-risk factors, counsel on safe storage and risk reduction. In patients with diminished cognitive capacity, disclose to others who can reduce the risk [213].

Laws Addressing Gun Removal from Owner/Possessor

Some laws address individuals at high risk for harming self or others who already possess a gun, by allowing petition for a court order that respondents relinquish their gun(s).

Domestic violence restraining orders (DVROs), with or without gun restrictions, have little effect on intimate partner homicides. DVROs reduce gun intimate partner homicides only when expanded to cover dating partners and ex parte orders (temporary until court hearing with respondent appearance) [224].

Some states have laws that restrict gun purchase and possession from those convicted of misdemeanor crimes of domestic violence and minimally reduce intimate partner homicide. However, misdemeanor crimes of domestic violence laws expanded to restrict gun purchase/possession from those convicted of any violent misdemeanor crime substantially reduce overall intimate partner homicides (-23%) and gun intimate partner homicides (-25%) [224].

Gun violence restraining orders are court orders to temporarily prevent gun access of high-risk individuals in crisis, independent of psychiatric history. Some state gun violence restraining orders allow gun removal if not voluntarily surrendered [225; 226].

Red flag laws (or extreme risk protection orders, in some states) provide a legal means for gun removal when other mechanisms are absent. Two states enacted red flag laws after being powerless to disarm individuals with warning signs of danger before they committed gun massacres. Florida passed its law after the Parkland shooting in 2018, and California passed its law in 2014 after the mass murder by Elliot Rodger [91].

Laws that explicitly require gun surrender or grant law enforcement officers authority to remove guns more effectively reduce gun violence than laws that leave enforcement unaddressed. Gun relinquishment may not occur just because it is ordered. Although enforcement of court orders can be done effectively, efforts to ensure implementation or enforcement by state and local jurisdictions have varied [224; 227].

IPV and Guns

In patients with suspected IPV from a current or former intimate, clinicians should ask about abuser gun ownership regardless of co-habitation status. In addition to lethality threat, the psychologic impact of merely displaying or handling a gun can facilitate coercive control. As a situation of chronic and escalating abuse, coercive control involving a gun portends ill for the woman [179; 223]. Patients injured by, or exposed to, gun violence are at risk for developing post-traumatic stress disorder or risky self-medication [222].

Duty to Warn

Patient disclosures to mental health professionals are typically protected by federal and state laws covering doctor/patient privilege and by practitioners' ethics rules governing confidentiality. Duty to warn is the exception, summarized to mean that privacy and privilege end where danger to the public begins [26]. This includes potential mass violence.

Tarasoff law states that therapists, clinicians, and other mental health counselors have the duty to protect third parties from harm. As a result of this legislation, clinicians have a duty to protect the third party by warning the targeted victim or others who can then warn the intended victim, notifying law enforcement, and implementing other steps to protect the potential victim [228]. These laws are state-specific and the professions affected vary.

CONSIDERATIONS TO AVOID STIGMATIZING PATIENTS WITH MENTAL ILLNESS

Mental health interventions to prevent mass shootings are based on the supposition that psychiatric evaluations can predict and thus prevent mass shootings. Such proposals are the logical conclusion of ascribing blame to untreated serious mental illness [9; 229]. However, most mass murderers do not have identifiable serious mental illness; most have maladaptive personality configurations. As such, gun access, not serious mental illness, determines most gun homicides [230].

The framing of mass violence as a serious mental illness problem persists, despite the statistically improbable odds of dying from gunshot by a stranger with psychotic illness [32]. The behavior and motives of mass shooters should be distinguished from psychiatric diagnoses [9].

Mass shooters are typified by long-standing, pervasive anger, persecution, violent revenge, and egotism—psychopathology for which the mental health field has no immediate, quick-acting "treatment." Mental health professionals can help troubled individuals willing to engage in psychotherapy, medication therapy, and/or substance abuse counseling, but the persecutory narcissistic pathology of mass shooters subverts such willingness, and they usually shun mental health treatment [9].

Psychiatric diagnosis is largely an observational tool, not an extrapolative one. A psychiatric diagnosis is not predictive of violence, and predictions of future dangerousness based on psychiatric judgement are not much better than chance alone. Even the overwhelming majority of psychiatric patients who superficially match the profile of mass shooters (i.e., gun-owning, angry, paranoid White men) do not commit crimes [19].

Some mass shooters (e.g., Cho, Harris, Breivik, Holmes, Lanza, Rodger) had been evaluated by psychiatrists prior to committing violence. Their assessments seemed cursory and focused on obvious symptoms, like anger. Without looking further into their personality pathology, the disproportionality of grievances and rage remained undetected and they went on to perpetrate [45]. Expecting psychiatrists, mental health workers, or primary care providers to prevent mass shootings imposes an impossible, ineffective burden [229].

CONSIDERATIONS FOR NON-ENGLISH-PROFICIENT PATIENTS/CLIENTS

As a result of the evolving racial and immigration demographics in the United States, interaction with patients for whom English is not a native language is inevitable. Because patient education is such an important aspect of the care of patients at risk for gun violence, it is each practitioner's responsibility to ensure that information and instructions are explained in such a way that allows for patient or caregiver understanding. When there is an obvious disconnect in the communication process between the practitioner and patient due to the patient's lack of proficiency in the English language, an interpreter is required. (In many cases, the terms "interpreting" and "translating" are used interchangeably, but interpreting is specifically associated with oral communication while translating refers to written text.) Frequently, this may be easier said than done, as there may be institutional and/or patient barriers.

Depending upon the patient's language, an interpreter may be difficult to locate. Or, an organization may not have the funds to bring in an interpreter. Also, bringing in an interpreter creates a triangular relationship with a host of communication dynamics that must be negotiated [231]. Many view interpreters merely as neutral individuals who communicate information back and forth. However, another perspective is that the interpreter is an active agent, negotiating between two cultures and assisting in promoting culturally competent communication and practice [232; 233]. In this more active role, the interpreter's behavior is also influenced by a host of cultural variables such as gender, class, religion, educational differences, and power/authority perceptions of the patient [232; 233]. Consequently, an intricate, triangular relationship develops between all three parties. Another factor affecting the communication process is the fact that many interpreters are not adequately trained in the art of interpretation in mental health and general health settings, as there are many technical and unfamiliar terms. An ideal interpreter goes beyond being merely proficient in the needed language/dialect [234]. Interpreters who are professionally trained have covered aspects of ethics, impartiality, accuracy, and completeness [235]. They are also well-versed in interpreting both the overt and latent content of information without changing any meanings and without interjecting their own biases and opinions [235]. Furthermore, knowledge about cross-cultural communication and all the subtle nuances of the dynamics of communicating in a mental health or general health setting is vital [233; 234].

On the patients' side, they may be wary about utilizing interpreters for a host of reasons. They may find it difficult to express themselves through an interpreter [236]. If an interpreter is from the same community as the patient, the client/patient may have concerns about sharing private information with an individual who is known in the community and the extent to which the information disclosed would remain confidential. In some cases, raising the issue of obtaining an interpreter causes the client/patient to feel insulted that their language proficiency has been questioned. Finally, if an interpreter is from a conflicting ethnic group, the patient may refuse having interpreter services [231]. The ideal situation is to have a well-trained interpreter who is familiar with health and mental health concepts.

If an interpreter is required, the practitioner must acknowledge that an interpreter is more than a body serving as a vehicle to transmit information verbatim from one party to another [236]. Instead, the interpreter should be regarded as part of a collaborative team, bringing to the table a specific set of skills and expertise [236]. Several important guidelines should be adhered to in order to foster a beneficial working relationship and a positive atmosphere.

A briefing time between the practitioner and interpreter held prior to the meeting with the client/patient is crucial. The interpreter should understand the goal of the session, issues that will be discussed, specific terminology that may be used to allow for advance preparation, preferred translation formats, and sensitive topics that might arise [234; 236; 237]. It is important for the client/patient, interpreter, and practitioner to be seated in such a way that the practitioner can see both the interpreter and client/patient. Some experts recommend that the interpreter sit next to the client/patient, both parties facing the practitioner [235].

The practitioner should always address the client/patient directly. For example, the practitioner should query the client/patient, "How do you feel?" versus asking the interpreter, "How does she feel?" [235]. The practitioner should also always refer to the client/patient as "Mr./Mrs. D" rather than "he" or "she" [236]. This avoids objectifying the client/patient.

At the start of the session, the practitioner should clearly identify his/her role and the interpreter's role [236]. This will prevent the client/patient from developing a primary relationship or alliance with the interpreter, turning to the interpreter as the one who sets the intervention [234]. The practitioner should also be attuned to the age, gender, class, and/or ethnic differences between the client/patient and the interpreter [236]. For example, if the client/patient is an older Asian male immigrant and the interpreter is a young, Asian female, the practitioner must be sensitive to whether the client/patient is uncomfortable given the fact he may be more accustomed to patriarchal authority structures. At the conclusion of the session, it is advisable to have a debriefing time between the practitioner and the interpreter to review the session [234; 236; 237].

In this multicultural landscape, interpreters are a valuable resource to help bridge the communication and cultural gap between clients/patients and practitioners. Interpreters are more than passive agents who translate and transmit information back and forth from party to party. When they are enlisted and treated as part of the interdisciplinary clinical team, they serve as cultural brokers, who ultimately enhance the clinical encounter. In any case in which information regarding diagnostic procedures, treatment options and medication/treatment measures are being provided, the use of an interpreter should be considered.

RESOURCES

American College of Physicians
Commitment to discuss gun safety with patients.
https://acp1.survey.fm/commitment-to-help-reduce-firearm-related-injuries-deaths

American Psychological Association
https://www.apa.org/topics/gun-violence-crime/prevention

American Public Health Association
https://www.apha.org/topics-and-issues/gun-violence

Annals of Internal Medicine
To help healthcare providers become knowledgeable of gun safety and risks, the *Annals of Internal Medicine* has made gun-related content available for free.
https://annals.org/aim/pages/firearm-related-content

Coalition to Stop Gun Violence
https://www.csgv.org

Everytown for Gun Safety
https://everytown.org

Giffords Law Center to Prevent Gun Violence
Comprehensive information on federal and state gun laws.
https://giffords.org/lawcenter/gun-laws

Office for Victims of Crime
Victims of Mass Violence and Terrorism Toolkit
https://ovc.ojp.gov/sites/g/files/xyckuh226/files/pubs/mvt-toolkit/tools.html

CONCLUSION

Mass shooting incidents have become overfamiliar to health and mental health providers and the public. The close associations between public mass shooters, extremists who commit mass violence, and domestic mass shooters are largely unknown. Mass shootings are acts of targeted violence fueled by personal or ideologic motive. For both offender types, the pathway to violence begins with grievance and alienation. Contrary to common misperception, mass violence is rarely committed by offenders experiencing serious mental illness or by offenders who "snap." In addition, most recent victims in the United States have been killed by far-right extremists rather than Islamist extremists. Mass shootings are typically defined as at least four persons killed over a brief period, and a large proportion of public mass violence perpetrators have histories of domestic violence. Mass shootings and domestic homicides are part of the larger public health concern of gun violence. Health and mental health providers are encouraged to initiate gun conversations with their patients. However, knowledge of gun injury statistics and gun culture that many gun owners are a part of are required for clinicians to play an effective role in reducing gun violence.

APPENDIX: UNDERSTANDING GUN CULTURE

Households with guns have demonstrably greater risk for homicide, suicide, and/or accidental firearm death of a household member. For providers devoted to preserving life and promoting health, this can make advising patients in risk situations to remove guns from their home seem ethically self-evident [220; 222].

However, a cultural divide can exist between gun-owning patients and clinicians. For many patients who own guns, gun ownership is a core element of a deeply rooted system of beliefs and values referred to as gun culture. Clinicians who are not part of this culture benefit from an understanding of the perceptions, beliefs, and values of gun culture members before initiating gun safety conversations with their patients. Although difficult for some clinicians, this reflects cross-cultural competence, a core element of patient-centered care. Understanding gun culture can make the difference between reaching versus alienating a patient.

THE LEGAL CONTEXT OF GUN RIGHTS

Ratified into law in 1791, the Second Amendment to the U.S. Constitution reads, "A well-regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed." The U.S. Supreme Court has affirmed the right to bear arms was the right for the individual, attachment to a militia was not relevant, and the protection expressly extended to firearms well-suited for self-defense [32].

MEDIA DEPICTION AND SYMBOLISM

In the United States, guns are bestowed with powerful symbolism that conveys empowerment, self-defense, self-sufficiency, and virility [34; 238]. The extent that guns are literally and symbolically enshrined in American culture is beyond the scope of this course. It is worth mentioning that guns are powerfully associated with masculinity. The images conveyed in American movies of guns as signifiers of virility and power are especially potent for disempowered White, working-class men. Guns figure prominently in the socialization of men from a very early age [239].

Media depictions of guns for self-protection conflict with objective evidence that gun access is more likely to facilitate than prevent violence [188]. The United States is one of very few countries relaxing instead of tightening access to guns. Diverse cultural aspects reinforce the idea that firearms are invaluable for self-defense in a dangerous world, despite evidence that guns heighten the risk of suicide and homicide [188; 204].

GUN CULTURE

Gun culture and its members represent a unique cultural subgroup. Many gun owners intensely resist public policy or clinician efforts that might limit gun access or ownership in some way and perceive such efforts as threats to their culture, values, and way of life. Gun culture and its members can be difficult for outsiders to understand [218]. Formal study of gun culture has been sparse, but recent research has been published to shed light on the values, attitudes, and beliefs of gun culture members. An important point is that research tends to report averages, but the circumstances and experiences of each individual and family are unique [188]. Also, the few available studies may not be representative of the universe of gun culture members.

Firearm ownership and use for recreation and personal defense have long been an integral part of the broader U.S. culture. In many parts of the country, social norms include participation in social activities around gun ownership [240]. In general, there is a sense of identity among gun owners and enthusiasts, often anchored in a shared enjoyment of owning and using firearms and tied to family traditions, personal beliefs, and social relationships [32]. Exposure to gun culture is robustly associated with gun ownership and both are mutually reinforcing [188; 240].

The First-Person Perspective

For those not raised in homes with firearms, gun ownership can begin from an awareness of threat and of one's vulnerability given the delay in police response that increases in rural areas. The first gun purchase is followed by instructions and practice, which brings an exciting thrill of mastering a powerful tool. The gun at home increases the feeling of confidence and sense of safety from the protection it affords. Wanting that sense of safety and confidence away from home, a concealed-carry permit is obtained. Carrying the weapon feels empowering, and no longer depending on the state for one's personal security and safety feels liberating. The enthusiasm continues as one enters the social networks of other gun owners. A changing worldview becomes noticeable [241].

Gun owners tend to believe that government regulation should deny guns to the dangerous while protecting the rights of access for the law-abiding. From this perspective, criminals and the dangerously mentally ill are believed to make the nation more violent, while law-abiding gun owners save and protect lives. Gun owners insist the government enforce existing laws, largely support existing background checks, and tend to be open to solutions that specifically target troubled individuals for intervention, such as gun violence restraining orders. Proposals such as bans on assault weapons and large-capacity magazines are opposed, as they are believed to punish the innocent and briefly inconvenience the lawless [241].

Gun Ownership and Empowerment

Guns carry powerful symbolic meaning that can promote gun owner attachment to their weapons extending beyond their self-defense utility. To better understand this relationship, 577 gun owners were administered the Gun Empowerment Scale. White men in economic distress showed greatest attachment to their guns, as a means to re-establish a sense of individual power [242; 243].

With changing economic realities, many working-class White men have lost, or perceive they are losing, their advantage and benefits from previous power and economic hierarchies. With expectation of status and power in their communities frustrated, the gun becomes a symbol through which to regain a lost sense of empowerment, nostalgic masculinity, and sense of self [242; 243].

Gun owners can be emotionally and spiritually attached to the weapon, but owners highly involved in their religious community are less likely to feel empowered by their guns. This suggests that White men most attached to their guns may use firearms to substitute for other cultural sources of meaning and identity. Women and non-White individuals who have suffered economic setbacks were not more likely to find empowerment in guns and tended to look elsewhere [242; 243].

Many working-class White men feel embittered over real or perceived economic setbacks. Searching for explanations of their circumstances, some find solace in narratives that cast blame at external forces designed to undermine the White working class. Such narratives reinforce the longstanding media messages that the government is interested in taking their guns and money. In one study, many described feeling highly patriotic through their gun ownership. Owners most attached to their guns were politically conservative and felt that violence against the government is sometimes justified, reflecting beliefs that developed from exposure to these and related narratives [242; 243].

Most gun owners support some gun legislation and do not support the idea of arming everyone. Gun owners who score high on the Gun Empowerment Scale show the strongest pro-gun policy attitudes, viewing that arming teachers and the public would make schools and citizens safer. This is thought to reflect avoidance of cognitive dissonance, an aspect of normal psychology whereby individuals who highly value their benefits from a source are disinclined to objectively examine that source [242; 243].

Beliefs of Self-Defense

Violent crime statistics cannot explain the relationship between threat perception and motivation for owning/carrying guns for self-protection. Instead, a social-cognitive perspective is used to examine how threat perception influences motivations to purchase a handgun and endorse broad gun rights. Long guns (i.e., rifles, shotguns) are owned mainly for hunting, target shooting, and similar activities. Self-protection is typified by handgun ownership [188].

Two distinct types of perceived threats were measured in a nationally representative sample of 899 male gun owners and non-owners [244]:

- Belief in a dangerous world:
  A diffuse, abstract belief of the world as a dangerous unpredictable place
- Perceived lifetime risk of assault:
  A specific, concrete threat that one may become a victim of violent assault

Belief in a dangerous world reflects a worldview that sees the world as an inherently dangerous, unpredictable, and threatening place. High belief in a dangerous world is strongly associated with political conservatism and right-wing authoritarianism and correlates with a subtle bias toward minorities (termed symbolic racism) [245; 246; 247; 248]. High belief in a dangerous world was the strongest predictor of need for protection/self-defense. Only handgun owners perceived greater threats than non-owners, with higher perceived lifetime risk of assault and belief in a dangerous world than both non-owners and owners of long guns only. Perceived lifetime risk of assault was influenced by previous victimization experience. Belief in a dangerous world was mainly determined by a politically conservative orientation, but not previous victimization [244].

The belief in a dangerous worldview that motivates handgun purchase also shapes beliefs about how handguns can and should be used. These include the rights of gun owners to shoot or kill other people in self-defense, the fundamentality of Second Amendment rights and opposition to laws infringing on gun rights, strong gun rights advocacy, and belief that a well-armed society is a safe society [244].

The belief in a dangerous world reflects a worldview that forms during early socialization, making it very difficult to influence. Worldviews are coherent belief systems, and changing any one specific belief would make it inconsistent with many other beliefs [249]. Efforts to dissuade handgun owners with a high belief in a dangerous world from needing a gun for self-defense are more likely to alienate than succeed. When specific risk perception drives the need for self-defense, persuasion could be aimed at reducing perceived threat (when inconsistent with actual threat) [244].

Other Sociocultural Factors

Today, efforts to increase gun control have been fiercely resisted primarily by White Americans, but this has not always been the case. During the civil rights movement of the late 1960s, Black Panthers and other Black activists exercised their right to carry loaded firearms for protection against the police and other perceived threats (e.g., violent White opponents). Californians responded by demanding stricter gun control, and Governor Ronald Reagan signed a law in 1967 that prohibited carrying loaded firearms in public [248].

The reasons for gun ownership and gun control opposition are complex, but a link is established between racial considerations, gun ownership, and gun control views. Research indicates that racial resentment is integral to National Rifle Association (NRA) discourse and identity of many White gun owners. Among Whites, a strong negative correlation was found between racial resentment and endorsement of gun control policy [247; 248].

Symbolic racism is not overt racism but is implicit bias—a subtle, subconscious form usually not linked to consciously held racist attitudes. Symbolic racism develops as a belief structure through early exposure to negative racial stereotypes. Individuals with high levels of symbolic racism respond negatively to issues perceived to involve a racial component, including policy preferences. In a large study of White Americans, higher symbolic racism increased the odds of having a gun in the home and greater opposition to gun control, after crime victimization and other explanatory factors were controlled [248]. However, while some gun ownership experiences are specific to White Americans, especially in rural areas, the enticement of guns to men cuts across racial lines.

Implicit Bias in Health Care

The role of implicit biases on healthcare outcomes has become a concern, as there is some evidence that implicit biases contribute to health disparities, professionals' attitudes toward and interactions with patients, quality of care, diagnoses, and treatment decisions. This may produce differences in help-seeking, diagnoses, and ultimately treatments and interventions. Implicit biases may also unwittingly produce professional behaviors, attitudes, and interactions that reduce patients' trust and comfort with their provider, leading to earlier termination of visits and/or reduced adherence and follow-up. Disadvantaged groups are marginalized in the healthcare system and vulnerable on multiple levels; health professionals' implicit biases can further exacerbate these existing disadvantages.

Interventions or strategies designed to reduce implicit bias may be categorized as change-based or control-based. Change-based interventions focus on reducing or changing cognitive associations underlying implicit biases. These interventions might include challenging stereotypes. Conversely, control-based interventions involve reducing the effects of the implicit bias on the individual's behaviors. These strategies include increasing awareness of biased thoughts and responses. The two types of interventions are not mutually exclusive and may be used synergistically.